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**UTILITY
PATENT APPLICATION
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(Only for new nonprovisional applications under 37 CFR 1.53(b))

Atty Docket No.	SHIM-007
First Named Inventor	Hideo Ago et al.
Title	HCV Polymerase Suitable for Crystal Structure Analysis and Method for Using the Enzyme

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents

Address to: Assistant Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

1. ☒ Specification (includes cover page) Total Pages 288
(preferred arrangement set forth below)
- Descriptive title of the invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to Microfiche Appendix

- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

3. ☒ Drawing(s) (35 USC 113) Total Sheets 2

4. ☒ Oath or Declaration Total Sheets 3

- a. ☐ Newly executed (original or copy)
b. ☐ Copy from a prior application (37 CFR 1.63(d)
(for continuation/divisional with Box 16 completed)

- i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting
inventor(s) named in the prior application,
see 37 CFR 1.63(d)(2) and 1.33(b)

c. ☒ Unsigned

5. ☐ Microfiche Computer Program (Appendix)
6. ☒ Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
a. ☐ Computer Readable Copy
b. ☒ Paper Copy (23 pgs)
c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☐ Assignment Papers (cover sheet & document(s))
8. ☐ 37 CFR 3.73(b) Statement ☐ Power of
(when there is an assignee) Attorney
9. ☐ English Translation Document (if applicable)
10. ☐ Information Disclosure ☐ Copies of IDS
Statement (IDS)/PTO-1449 Citations
11. ☒ Preliminary Amendment (5 pgs)
12. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
13. ☐ Small Entity ☐ Statement filed in prior application
Statement(s) Status still proper and desired
14. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
15. ☐ Other:

16. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No. 1

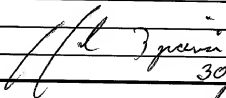
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Atty Dkt No. SHIM-007

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Signature	<i>Dave Glisson</i>	Date	June 30, 2000

PRELIMINARY AMENDMENT Address to: Assistant Commissioner for Patents Washington, D.C. 20231	Attorney Docket	SHIM-007
	First Named Inventor	Hideo Ago et al.
	Application Number	Unassigned
	Filing Date	Even Date Herewith
	Group Art Unit	Unassigned
	Examiner Name	Unassigned
	Title	HCV Polymerase Suitable for Crystal Structure Analysis and Method for Using the Enzyme

Sir:

This is a preliminary amendment to the patent application identified above. Prior to examination of the subject application, please enter the following amendments to the specification and claims:

AMENDMENTS

IN THE SPECIFICATION:

On page 1, beneath the Title, add:

--This application claims priority to Japanese Application No. 11-188630, filed July 2, 1999 and Japanese Application No. 11-192488, filed July 7, 1999, filed under 35 U.S.C. § 119.--

IN THE CLAIMS:

Please **cancel** claims 1-18 and **add** new claims 19-36.

19. (New) A polypeptide, characterized by

- (a) derived from HCV polymerase NS5B having an HCV polymerase activity;
- (b) consisting of an amino acid sequence X-Y;

wherein X comprises a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, and a C-terminal amino acid of X is an amino acid residue selected from the group consisting of amino acid residues 531 (Lys) to 570 (Arg) of the NS5B;

wherein one or more amino acids in the amino acid sequence of X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionine residues;

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wherein Y comprises a carboxyl group or an amino acid sequence which is not derived from NS5B.

20. (New) The polypeptide of claim 19, wherein the C-terminal amino acid residue of X is an amino acid residue selected from the group consisting of 536 (Leu) to 552 (Val) of the NS5B.

21. (New) The polypeptide of claim 20, wherein the C-terminal amino acid residue of X is an amino acid residue selected from the group consisting of 536 (Leu) to 544 (Gln) of the NS5B.

22. (New) The polypeptide of claim 20, wherein the C-terminal amino acid residue of X is an amino acid residue selected from the group consisting of 531 (Lys) to 544 (Gln) of the NS5B.

23. (New) The polypeptide of claim 19, wherein methionine residues in the amino acid sequence of X are replaced by selenomethionine residues.

24. (New) The polypeptide of claim 19, wherein Y is an amino acid sequence not derived from NS5B, and said amino acid sequence is suitable for column purification.

25. (New) The polypeptide of claim 19, wherein the NS5B comprises an amino acid sequence of SEQ ID NO: 1.

26. (New) The polypeptide of claim 19, wherein said polypeptide is identified by three-dimensional structural coordinates shown in a table selected from the group consisting of Table 2 and Table 3.

27. (New) A crystal comprising the polypeptide of claim 19.

28. (New) A DNA encoding the polypeptide of claim 19.

29. (New) A method for determining three-dimensional structural coordinates of a variant of HCV polymerase NS5B by the molecular replacement method using a three-dimensional structure coordinate of said NS5B.

30. (New) A method for designing or identifying HCV polymerase inhibitors, which comprises determining the complementarity of a test compound with an active site and/or RNA binding cleft of a polypeptide using the three-dimensional structural coordinate of said polypeptide or its part and the three-dimensional structural coordinate of the test compound, wherein said polypeptide is derived from the HCV polymerase NS5B having an HCV polymerase activity and consisting of an amino acid sequence X-Y, wherein X is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, a C-terminal amino acid residue of X is any one of amino acid residues 531(Lys) to 570 (Arg) of the NS5B; and

wherein Y is a carboxyl group or another amino acid sequence which is not derived from NS5B; and one or more amino acids in X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionine residues.

31. (New) A method for designing or identifying HCV polymerase inhibitors, which comprises the steps of:

(a) determining the complementarity of a test compound with an active site and/or RNA binding cleft of a polypeptide using a three-dimensional structural coordinate of said polypeptide or its part and a three-dimensional structural coordinate of said test compound, wherein said polypeptide is derived from the HCV polymerase NS5B having an HCV polymerase activity and consisting of an amino acid sequence X-Y, wherein X is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, a C-terminal amino acid residue of X is any one of amino acid residues 531 (Lys) to 570 (Arg) of the NS5B; and

wherein Y is a carboxyl group of another amino acid sequence which is not derived from NS5B; and one or more amino acids in X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionine residues;

(b) determining HCV polymerase-inhibitory activity of said test compound; and
(c) designing or determining HCV polymerase inhibitors using the complementarity data of said test compound determined in the above (a), and the inhibitory activity data obtained in the above (b).

32. (New) The method of claim 29, wherein the three-dimensional structural coordinate of the polypeptide is selected from the group consisting of dimensional structural coordinates shown in a table selected from the group consisting of Table 2 and Table 3.

33. (New) A method for identifying HCV polymerase inhibitors, which comprises the steps of:

(a) obtaining a polypeptide, which is derived from the HCV polymerase NS5B has an HCV polymerase activity, and consisting of the amino acid sequence X'-Y, wherein X' is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X' is the amino acid residue 1 (Ser) of the NS5B, a C-terminal amino acid residue of X' is any one of amino acid residues 531 (Lys) to 544 (Gln) of the NS5B; and wherein Y is a carboxyl group or another amino acid sequence which is not derived from NS5B; and one or more amino acids in X' may be modified, and methionine residues in the amino acid sequence of X' may be replaced by selenomethionine residues;

(b) determining the HCV polymerase activity of said polypeptide by reacting said polypeptide obtained in the above (a) with a template RNA and substrates in the presence of a test compound;

(c) determining the HCV polymerase activity of said polypeptide by reacting polypeptide obtained in the above (a) with a template RNA and substrates in the absence of said test compound; and

(d) comparing the HCV polymerase activity of the above (b) with the HCV polymerase activity of the above (c).

34. (New) An HCV polymerase inhibitor, identified by the method of claim 30.

35. (New) An HCV polymerase inhibitor that inhibits the HCV polymerase activity of HCV polymerase NS5B by acting on a boundary between Thumb and Palm domains of NS5B.

36. (New) The HCV polymerase inhibitor of claim 35, wherein said inhibitor is a compound represented by the formula, Z-Asp-Leu-Ser-Gly-Trp-Phe-Z', wherein Z is Leu or a hydrophilic group, and Z' is Val or a hydrophilic group.

REMARKS

Claims 19-36 are now pending in this application and are supported in originally pending, now canceled claims 1-18. No new matter has been added.

Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

By: Karl Bozicevic
Registration No. 28,807

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Date of Deposit June 30, 2000

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Dave Glisson
Signature of Person Mailing Paper or Fee

PATENT APPLICATION

HCV POLYMERASE SUITABLE FOR CRYSTAL STRUCTURE ANALYSIS AND METHOD FOR USING THE ENZYME

0006082713-063000

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HCV Polymerase Suitable for Crystal Structure Analysis and
Method for Using the Enzyme

FIELD OF THE INVENTION

The present invention relates to a polypeptide having the hepatitis C virus (HCV) polymerase activity, suitable for crystal structure analysis, and effective for evaluating the HCV polymerase activity and the use of the polypeptide.

More specifically, the present invention relates to a polypeptide having the HCV polymerase activity, which is obtained in the form of crystals suitable for crystal structure analysis and its crystals, as well as a DNA encoding the polypeptide. The present invention also relates to: (a) a method for determining structural coordinates for a cocomplex or a variant of the polypeptide (NS5B), (b) a method for identifying HCV polymerase inhibitors from the complementarity of a test compound with an active site and/or RNA binding cleft of the polypeptide, and (c) an HCV polymerase inhibitor obtained by the methods.

Moreover, the present invention relates to a method for identifying HCV polymerase inhibitors using the polypeptide that shows the polymerase activity higher than the wild-type HCV polymerase.

BACKGROUND OF THE INVENTION

Hepatitis C is a grave problem as it infects by blood transfusion and so on, and more than half of the cases become chronic with the high probability of progressing into cirrhosis and hepatoma. A cause of hepatitis C is known to be hepatitis C virus (HCV) and its gene was cloned in 1989 by the immunoscreening method using plasma of the chimpanzee infected with the human plasma (Science, 244, 359-362, 1989).

Hepatitis C virus is a plus strand RNA virus with an envelope and comprises the RNA encoding a protein consisting of 3010 amino acids. A precursor protein biosynthesized from the RNA in a host is processed into a structural protein forming viral particles (a core protein and two envelope proteins) and a non-structural protein (NS2, NS3, NS4A, NS4B, NS5A, NS5B)

by a cellular signalase and a protease encoded by the RNA of the virus itself. It has been considered that NS2 and NS3 retain the protease activity and are necessary enzymes for processing a precursor protein, and the helicase of NS3 and RNA-dependent RNA polymerase of NS5 are essential for viral replication.

At present, interferon α and interferon β are used for treating hepatitis C, however, they are less or no effective for many patients. A more effective drug for the treatment is thus needed. Developing novel HCV inhibitors is underway, and attention is focused on studies on the inhibitors by targeting proteins specific for HCV, such as protease, helicase, RNA-dependent RNA polymerase.

An inhibitor for viral proliferation is generally screened by measuring activity of inhibiting viral proliferation *in vitro* or *in vivo*. As to HCV, however, techniques for effecting the viral proliferation *in vitro* has not been established yet. Moreover, the screening of the viral proliferation of HCV in hosts is difficult because the virus only infects cells of human and chimpanzee.

Therefore, in development of anti-HCV drugs, developing an inhibitor by targeting specific coding proteins essential for the HCV proliferation is of great significance and the efficient assay method is desired.

In developing inhibitors for enzyme activity, molecular designing of inhibitors has been attempted by computers based on three-dimensional structure of enzymes to enhance the screening efficiency. In this methodology, various candidate compounds are designed and identified by tentatively evaluating the inhibitory activity against the enzyme activity of the candidate compounds by computer, considering the three-dimensional structures of various candidate compounds and physical properties of the molecule. The inhibitors can be identified more efficiently by combining designing and evaluation of the inhibitors using the three-dimensional structures of these enzymes, and evaluation of the enzyme activity in actually synthesized compounds.

In order to design molecules of inhibitors by computers, three-dimensional structure of an enzyme must be revealed. Three-dimensional structure of the enzyme can be clarified by X-ray crystal structure analysis. For example, the crystal structures of HIV reverse transcriptase (Nature Structural Biology, 2, 293-302, 1995; Structure, 3, 365-379, 1995), interleukin-1 β transformation enzyme (WO95/35367), protease of cytomegalovirus (WO97/42311), HCV helicase (WO99/09148), etc., have been analyzed.

Virology, 73, 1649-54, Feb. 1999, and Journal of General Virology, 81, 759-767, 2000). In the former reference, however, NS5B₆₉₆ (NS5B consisting of 536 amino acids in which the C-terminus of the full length NS5B is truncated, same hereafter) and NS5B₆₂₉, showed only slightly higher activity compared with NS5B₆₇₀ (about 1.3 to 1.4 times). In the latter, activity of NS5B₆₉₁ (the full length NS5B) was compared with only that of NS5B₆₇₀. These references demonstrate that the truncated NS5B retained the polymerase activity, but do not propose any methods for evaluating inhibition for the HCV polymerase activity more efficiently by exploiting the high polymerase activity. Moreover, these references do not suggest any method for identifying compounds having the HCV polymerase-inhibitory activity more efficiently in combination with a method for identifying inhibitors based on the three-dimensional structure of the HCV polymerase.

SUMMARY OF THE INVENTION

An objective of the present invention is to provide a polypeptide having HCV polymerase activity, which is obtained in the form of crystals suitable for crystal structure analysis, the crystals, and a DNA encoding the polypeptide.

Another objective of the present invention is to provide, (a) a method for determining structural coordinates of a cocomplex and a variant of the polypeptide, (b) a method for identifying HCV polymerase inhibitors based on the complementarity of a test compound with the active site and/or the RNA binding cleft of the polypeptide, and using the structural coordinate, and (c) HCV polymerase inhibitors obtained by the above methods.

Still another objective of the present invention is to provide a polypeptide having polymerase activity higher than that of the wild-type HCV polymerase, a method for inhibiting the HCV polymerase using the polypeptide, and a method for identifying HCV polymerase inhibitors using the methods.

The present inventors extensively studied to find polypeptides having the HCV polymerase activity, which can be obtained in the form of crystals suitable for crystal structure analysis. The inventors discovered a desired polypeptide and successfully clarified its crystal structure to complete the present invention.

Specifically, the present invention is described in (1) to (16) below.

(1) A polypeptide derived from HCV polymerase NS5B having an HCV

polymerase activity and consisting of an amino acid sequence X-Y, wherein X is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, and a C-terminal amino acid residue of X is any one of amino acid residues 531 (Lys) to 570 (Arg) of the NS5B; and wherein Y is a carboxyl group or an amino acid sequence which is not derived from NS5B; and one or more amino acids in the amino acid sequence of X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionine residues.

(2) The polypeptide of (1), wherein the C-terminal amino acid residue of X is any one of amino acid residues 536 (Leu) to 552 (Val) of the NS5B.

(3) The polypeptide of (2), wherein the C-terminal amino acid residue of X is any one of amino acid residues 536 (Leu) to 544 (Gln) of the NS5B.

(4) The polypeptide of (2), wherein the C-terminal amino acid residue of X is any one of amino acid residues 531 (Lys) to 544 (Gln) of the NS5B.

(5) The polypeptides of any one of (1) to (4), wherein methionine residues in the amino acid sequence of X are replaced by selenomethionine residues.

(6) The polypeptides of any one of (1) to (5), wherein Y is an amino acid sequence not derived from NS5B, and said amino acid sequence is suitable for a column purification.

(7) The polypeptides of any one of (1) to (6), wherein the NS5B comprises an amino acid sequence of SEQ ID NO: 1.

(8) The polypeptide of (1), wherein said polypeptide is identified by an three-dimensional structural coordinates shown in Tables 2 or 3.

(9) A crystal comprising the polypeptide of any one of (1) to (8).

(10) A DNA encoding the polypeptide of any one of (1) to (8).

(11) A method for determining a three-dimensional structural coordinates of a cocomplex or a variant of HCV polymerase NS5B by the molecular replacement method using a three-dimensional structure coordinate of said NS5B.

(12) A method for designing or identifying HCV polymerase inhibitors, which comprises determining the complementarity of a test compound with an active site and/or RNA binding cleft of a polypeptide using the three-dimensional structural coordinate of said polypeptide or its part and the three dimensional structural coordinate of the test compound, wherein said polypeptide is derived from the HCV polymerase NS5B having an HCV

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the inhibitory activity data obtained in the above (b).

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comprises the steps of:

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portion of the NS5B, an N-terminal amino acid of X' is the amino acid residue 1 (Ser) of the NS5B, a C-terminal amino acid residue of X' is any one of amino acid residues 531 (Lys) to 544 (Gln) of the NS5B; and wherein Y is a carboxyl group or another amino acid sequence which is not derived from NS5B; and one or more amino acids in X' may be modified, and methionine residues in the amino acid sequence of X' may be replaced by selenomethionin residues;

(b) determining the HCV polymerase activity of said polypeptide by reacting said polypeptide obtained in the above (a) with a template RNA and substrates in the presence of a test compound;

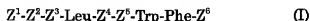
(c) determining the HCV polymerase activity of said polypeptide by reacting the polypeptide obtained in the above (a) with a template RNA and substrates in the absence of said test compound; and

(d) comparing the HCV polymerase activity of the above (b) with the HCV polymerase activity of the above (c).

(16) An HCV polymerase inhibitor, identified by the method in any one of (12) to (15).

(17) An HCV polymerase inhibitor that inhibits the HCV polymerase activity of HCV polymerase NS5B by acting the boundary between the Thumb and Palm domains of NS5B.

(18) The HCV polymerase inhibitor of (17), wherein said inhibitor is a polypeptide represented by the formula (I) or a pharmaceutically acceptable salt thereof:



wherein Z¹ and Z⁶ each represent a hydrophilic group or an amino acid residue; Z² and Z³ each represent a single bond or an amino acid residue; and Z⁴ and Z⁵ each represent an amino acid residue.

The terms used herein have the following meanings.

"HCV" is an abbreviation for Hepatitis C Virus.

"HCV polymerase" means RNA-dependent RNA polymerase encoded by RNA of HCV. It means not only a specific sequence but also a polypeptide derived from HCV polymerase NS5B, including any specific HCV types, any genotypes, and any mutants having the polymerase activity.

The HCV polymerase includes a polypeptide derived from the HCV polymerase NS5B, which has a polymerase activity and consisting of an amino acid sequence X - Y, wherein X is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, and a C-terminal amino acid residue of X is any one of the amino acid residues from 531 (Lys) to 570 (Arg) of the NS5B; and wherein Y is a carboxyl group or an amino acid sequence which is not derived from NS5B; and

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one or more amino acids in the amino acid sequence of X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionine residues.

Except as otherwise set forth herein, specific amino acid position(s) indicated in the present specification means the position(s) in NS5B amino acid sequence.

The amino acid sequence of SEQ ID NO: 1 is the HCV polymerase of HCV-BK strain belonging to HCV1b genotype, commonly observed worldwide, especially in Asia and Europe. Therefore it is a useful HCV polymerase in this invention.

“HCV polymerase NS5B” and “NS5B” mean nonstructural proteins encoded by the nonstructural 5B (NS5B) region of the HCV RNA, which is located at the C-terminus of the viral protein (open reading frame) and possess RNA-dependent RNA polymerase activity. Herein, “HCV polymerase NS5B” and “NS5B” are synonyms with each other, and are not restricted to a specific wild-type NS5B.

NS5B is digested with a protease of the HCV itself. For example, in the case of the HCV-BK strain, NS5B is a polypeptide consisting of 591 amino acids from amino acid 2420 to the C-terminus in the viral protein (open reading frame).

A consecutive amino acid sequence 1 - 531 in NS5B is also designated as NS5B₅₃₁, and other consecutive amino acids are designated in the same manner.

“HCV polymerase activity” means the function of the above HCV polymerase to amplify RNA.

“HCV polymerase-inhibitory activity” means the function to inhibit the above HCV polymerase activity.

“HCV polymerase inhibitor” means an agent having the activity of inhibiting the above HCV polymerase activity.

“Wild-type HCV polymerase” means full length RNA-dependent RNA polymerase encoded by the RNA of hepatitis C virus existing in nature.

“Native HCV polymerase” means the above HCV polymerase in which methionine is not replaced by selenomethionine.

"Substrate" means adenine, guanine, cytosine, uridine, and their ribonucleosides, preferably ribonucleoside triphosphates, ATP, GTP, CTP, and UTP.

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atom is replaced by a selenium atom.

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- His - His - His, etc.

In the formula (I), Z^1 is preferably a single bond, and Z^1 , Z^2 , Z^4 , Z^5 , and Z^6 are preferably any of amino acid residues.

Amino acid residues for Z^2 , Z^3 , Z^4 , and Z^5 are preferably hydrophilic amino acid residues, including Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Lys, His, Arg, Asp, and Glu. Z^2 is preferably Asp, Z^4 is preferably Ser, and Z^5 is preferably Gly.

An amino acid residue for Z^1 is preferably Leu or a hydrophilic amino acid residue, which includes the same examples as for Z^2 , Z^3 , Z^4 , and Z^5 . Z^1 is more preferably Leu or Lys, and still more preferably Lys.

An amino acid residue for Z^6 is preferably Val or a hydrophilic amino acid group, which includes the same examples as for Z^2 , Z^3 , Z^4 , and Z^5 . Z^6 is more preferably Val, Thr, Arg or Lys, and still more preferably Lys.

"Hydrophilic group" includes a hydroxyl group, a carboxyl group, an amino group, a dimethylamino group, a mercapto group, and so on, and also include a carboxyl group contained in a phenylalanine residue at the C-terminus of the polypeptide represented by the formula (I), and an amino group contained in the N-terminal residue of said polypeptide. A hydrophilic group for Z^1 is preferably an amino group, and that for Z^6 is preferably a carboxyl group.

Examples of the polypeptide represented by the formula (I) include:

Lys-Asp-Leu-Ser-Gly-Trp-Phe-Lys;

Lys-Lys-Asp-Leu-Ser-Gly-Trp-Phe-Lys;

Lys-Asp-Leu-Ser-Gly-Trp-Phe-Val;

Leu-Asp-Leu-Ser-Gly-Trp-Phe-Lys;

Leu-Asp-Leu-Ser-Gly-Trp-Phe-Val;

Asp-Leu-Ser-Gly-Trp-Phe-Val;

Asp-Leu-Ser-Gly-Trp-Phe;

Leu-Ser-Gly-Trp-Phe-Val;

Leu-Ser-Gly-Trp-Phe;

Leu-Ser-Gly-Trp-Phe-Lys;

Lys-Leu-Ser-Gly-Trp-Phe;

Leu-Gly-Gly-Trp-Phe;

Leu-Ser-Asp-Trp-Phe; etc.

The polypeptide is preferably

Lys-Asp-Leu-Ser-Gly-Trp-Phe-Lys and
 Leu-Asp-Leu-Ser-Gly-Trp-Phe-Val,

and more preferably

Lys-Asp-Leu-Ser-Gly-Trp-Phe-Lys.

5 "Three-dimensional structural coordinate" and "structural coordinate" of the HCV polymerase NS5B are synonymously used, and the structural coordinate includes "structural coordinate substantially equivalent" to "structural coordinate" of the NS5B.

10 "Structural coordinate" is a mathematical coordinate obtained by converting diffraction intensity at each diffraction point obtained by X-ray diffraction by electrons contained in atoms of the NS5B in the crystal form, into a numerical value, and analyzing the result. It presents locations of atoms in the NS5B expressed as a three-dimensional coordinate. Specifically, examples are the structural coordinates shown in Tables 2 and 3 of Example 2.

15 "Substantially equivalent structural coordinate" means a derivative structural coordinate generated as a result of artificially processing the structural coordinate of the NS5B or its part by computers or the like means. When the derivative structural coordinate of the NS5B is overlapped on the structural coordinate shown in Tables 2 or 3 so as to fit the locations of the
 20 corresponding atoms, residual mean square deviation is preferably within $\pm 0.5 \text{ \AA}$ or less, and more preferably, $\pm 0.2 \text{ \AA}$ or less from an original atom. A structural coordinate is preferably that of NS5B having the polymerase activity. Two structural coordinates show the identical three-dimensional structure when the locations of the corresponding atoms included in the structural
 25 coordinates can be overlapped, even if the numerical values of the coordinates indicating the locations of the atoms are different.

"To identify" means not only determining one, but selecting the less from the more.

30 "Molecular replacement method" is a method for determining the crystal structure of a protein whose structure is unknown based on the structure of a known protein with the same function as an initial model. Specific procedures are described in Experimental Chemistry Course 10, Diffraction, Japanese Society of Chemistry, 260-263 (1992), or Methods in Enzymology, 115, 55-77 (1985), edited by M. G. Rossman.

35 "Cocomplex" means a complex formed by HCV polymerase and a

compound having or expectedly having the HCV polymerase-inhibitory activity, and includes a complex comprising RNA strands, substrates or a metal essential for expression of the HCV polymerase activity, for example, manganese, magnesium, etc. Cocomplexes include are those formed by
5 cocrystals, and those formed by soaking the HCV polymerase crystals in a solution containing the compound having or expectedly having the HCV polymerase-inhibitory activity.

"Active site" means (1) the region of the HCV polymerase in which a template RNA is replicated, formed by Asp at positions 220, 318 and 319, Lys
10 144, and Arg 158 in the amino acid sequence of the HCV polymerase, and/or (2) a hydrophilic shallow hollow formed by Ser 282, Thr 287, and Asn 291.

"RNA binding cleft" means a portion of the HCV polymerase, including an active site, and the inner space formed by the following Fingers, Palm and Thumb domains. It is a site that can be a target for identifying HCV
15 polymerase inhibitors, including a space where a template RNA is incorporated when RNA is replicated. "RNA binding cleft" used herein differs from an active site.

Specific examples of the "RNA binding cleft" includes "inner space of the Palm domain" and "boundary site between the Thumb and Palm domains",
20 other than the above "active site."

"Inner space of the Palm domain" is not an RNA replication site, but a space generated between the HCV polymerase and a template RNA when RNA is replicated using RNA of HCV as a template, and formed by the regions of amino acid residues 197 to 223, 310 to 325, and 348 to 366. These regions may
25 be shifted 1 to 20, preferably 1 to 10, and more preferably 1 to 5 amino acids, to the N- or C-terminal side.

"Boundary site between the Thumb and Palm domains" is not an RNA replication site, but a site to which the C-terminus of NS5B₅₇₀ binds, and which can be a target for identifying HCV polymerase inhibitors, comprising the
30 hydrophobic surface existing at the boundary between the Thumb and Palm domains described below. Specifically, the site is formed by amino acid Ser 196, Pro 197, Ile 413, Met 414, Ile 447, Tyr 448, Tyr 452, Ile 454, Ile 462, and Leu 466 in the amino acid sequence of the HCV polymerase or a part of it.

A site involved in "RNA binding cleft" includes Lys 90, 98, 106, and 172
35 and Arg 168 in the Holder domain, and Arg 465 in the Thumb domain, which have an important role in binding of RNA strands.

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A preferable site that can be a target for identifying HCV polymerase inhibitors includes "active site" and "boundary site between Thumb and Palm domains."

"A part of a structural coordinate" means the structural coordinate including all or some of structures shown in the above "active site" and "RNA binding cleft" among the structural coordinates of NS5B.

"Complementarity of a test compound with an active site and/or RNA binding cleft of the polypeptide" is determined by calculating the condition under which the test compound conformationally or physically interacts with an active site and/or RNA binding cleft, and converting binding stability of the test compound to the site into a numerical value or visualizing the binding stability. Especially, it is preferable to obtain the complementarity of the surface structure of the test compound with the surface structure of the polypeptide by calculating conformational or static complementarity.

Complementarity can be compared between unknown compounds A and B, between a known compound A with a known enzyme-inhibitory activity and an unknown compound A, between known compounds A and B, and between any compounds.

"Acting on the boundary site between the Thumb and Palm domains" means that an HCV polymerase inhibitor binds to said site of HCV polymerase NS5B physically, chemically, statically, or in a similar manner, but is not limited to these modes of action.

Any patents, patent applications, and publications cited herein are incorporated by reference.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows the ribbon model of the three-dimensional structure obtained by visualizing the structural coordinate of the HCV polymerase (NS5B₅₇₀) using the program software RasMol.

Figure 2 schematically shows the three-dimensional structure of the HCV polymerase (NS5B₅₇₀). The α helices and β sheets are indicated sequentially in alphabetical and numerical order, respectively.

Figure 3 compares amino acid sequences of HCV polymerase, poliovirus polymerase, and HIV reverse transcriptase.

Figure 4 shows the three-dimensional structure of the HCV polymerase

NS5B₅₇₀, emphasizing the polypeptide region at positions 547 to 556. The right figure corresponds to the left figure rotated 90 degree upward.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is illustrated in detail below.

i) HCV polymerase suitable for crystal structure analysis and its gene

The HCV polymerase suitable for crystal structure analysis of the present invention can be prepared by the standard methods of recombinant techniques.

For example, a DNA encoding a polypeptide derived from the HCV polymerase NS5B is inserted into a vector. The polypeptide has the HCV polymerase activity and comprises an amino acid sequence X-Y, in which X is a consecutive amino acid sequence which is a part of NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of NS5B, and a C terminal amino acid residue of X is any one of the amino acid residues from 531 (Lys) to 570 (Arg) of NS5B; Y is a carboxyl group or an amino acid sequence which is not derived from NS5B; and one or more amino acids in the amino acid sequence of X may be modified, and methionine of the amino acid sequence of X may be replaced by selenomethionine. The vector is used to transform *E. coli*, and the resulting transformants are cultured to isolate the polypeptide.

The HCV polymerase “suitable for crystal structure analysis” should be easily purified.

One embodiment of the HCV polymerase is a variant of the HCV polymerase in which a part of the amino acids are replaced by amino acids suitable for column purification. The replaced sequence makes the purification of the polypeptide easy and its large quantity production possible. An amino acid sequence of the HCV polymerase, suitable for crystallization, is preferably a sequence in which the amino acids suitable for column purification can be readily cleaved after column purification and/or which does not prevent crystallization of the HCV polymerase. Purification without using a surfactant is very preferable in crystallization after the purification.

Furthermore, the HCV polymerase “suitable for crystal structure analysis” should be easily crystallized, made into crystals with high quality, which are hardly degraded. “Being easily crystallized” means that

manipulation for crystallization is easy, conditions for crystallization are simple, and that crystals can be obtained with no or little influence by a small difference of conditions for crystallization, for example, temperature and kinds, concentration, pH of a solvent, and so on. "Crystals with high quality" means
5 less lattice fault and larger crystals. "Being hardly degraded" means, for example, that the crystals are not easily dissolved according to the change of, for example, temperature and kinds, concentration, and pH of a solvent.

The crystals should have smaller fluctuation in a whole molecule or a part of the molecule of the crystallized polymerase.

10 The crystals of the obtained HCV polymerase can be grown, for example, by vapor diffusion, to be used for crystal structure analysis.

A cocrystal comprising the polymerase and a compound having the HCV polymerase-inhibitory activity can be used for crystal structure analysis of the cocomplex. Crystals prepared by soaking the polymerase crystal in a
15 solution of the compound can also be used for crystal structure analysis of the cocomplex.

It is generally known that when an amino acid sequence of a physiologically active protein is slightly modified, for example, by deletion or substitution of one or more amino acids in the amino acid sequence, or addition
20 of one or more amino acids to the amino acid sequence, the physiological activity of the protein may be retained. Not only artificial manipulation but also spontaneous mutation may retain the activity.

A polypeptide modified by deletion, substitution, or addition of amino acid(s), can be prepared by, for example, subjecting the gene encoding the
25 polypeptide to the site-directed mutagenesis that is known in the art (for example, Nucl. Acid Research, 10 (20), 6487-6500, 1992). For example, the mutation can be performed by using synthetic oligonucleotide primers complementary to the DNA at a site where the corresponding polypeptide is to be modified.

30 In addition to the site-directed mutagenesis, known modification methods include a method in which a gene is treated with mutagen, or a method in which a gene is cleaved with a restriction enzyme, and a selected gene fragment is removed, added or replaced, and ligated.

A variant may include a conservatively substituted sequence. This
35 indicates that a specific amino acid residue may be substituted by a residue with similar physiochemical properties. Unrestricted examples of the

The present invention provides a DNA encoding the HCV polymerase, which is a DNA encoding the polypeptide derived from the HCV polymerase NS5B, having the HCV polymerase activity and comprising the amino acid sequence X-Y, in which X is a consecutive amino acid sequence which is a part of NS5B, an N terminal amino acid of X is the amino acid residue 1 (Ser) of NS5B, and a C terminal amino acid residue of X is any one of the amino acid residues from 531 (Lys) to 570 (Arg) of NS5B; Y is a carboxyl group or an amino acid sequence which is not derived from NS5B; and one or more amino acids in the amino acid sequence of X may be modified, and methionine in the amino acid sequence of X may be replaced by selenomethionine.

15 Since there are more than one codons which encode one amino acid, any
DNA having a nucleotide sequence can be used as long as a desired amino acid
sequence can be obtained. Therefore, the DNA of the present invention
includes not only a DNA encoding an amino acid sequence of, for example, SEQ
ID NO: 1, but also DNAs comprising any combinations of codons, which encode
20 desired amino acid sequences.

ii) Crystal structure analysis of the HCV polymerase

An enzyme such as the HCV polymerase, has the complicated molecular structure, thus three-dimensional structures of its crystals and the molecule
25 can be identified by analyzing the crystals with X-ray. The crystal structure analysis can be performed by, for example, the molecular replacement method, the multiple wavelength anomalous dispersion method, the multiple heavy atom isomorphous replacement method, and so on.

30 Crystal structure analysis by the multiple heavy atom isomorphous
replacement method

The multiple heavy atom isomorphous replacement method is a method for analyzing the three-dimensional structure of a protein, comprising measuring X-ray diffraction intensity of native protein crystals to which a heavy atom/s is/are attached, and the native protein crystals to which a heavy atom is not introduced (a native protein), comparing the diffraction intensity

data, and determining a phase angle for each diffraction for the crystals (Experimental Chemistry Course 10, Diffraction, Japanese Society of Chemistry, 253-260, 1992).

To analyze the crystal structure of the HCV polymerase by the multiple heavy atom isomorphous replacement method, a desired HCV polymerase is produced and purified by the above method.

The HCV polymerase in which a sulfur of Met was replaced with selenium was isolated and purified by producing the HCV polymerase by the above method in the medium in which selenomethionine was added in place of methionine (hereafter referred to as the selenomethionine HCV polymerase or the selenomethionine heavy atom substitution product).

Herein, the HCV polymerase obtained by the addition of Met may be expressed as a native HCV polymerase to distinguish from the selenomethionine HCV polymerase.

The crystals of the native HCV polymerase and the selenomethionine HCV polymerase can be obtained by vapor diffusion. A heavy atom substitution products of the native HCV polymerase can be prepared by soaking the crystals of the native and the native HCV polymerase in solutions containing platinum, uranium, and osmium. A structural coordinate can be determined by measuring diffraction intensity for the crystals of the obtained heavy atom substitution products and calculating the phase angle by the multiple heavy atom isomorphous replacement method.

According to the principle of the multiple heavy atom isomorphous replacement method, there is the relationship for each reflection of a structural factor from the crystals with a heavy atom (FPH), a structural factor of the native crystal data (FP), and contribution of the introduced heavy atom (FH):

$$FPH = FP + FH.$$

$|FPH|$ and $|FP|$ are the numerical values obtained from the experiment. From these data, the location of the heavy atom can be determined, and $|FH|$ can be calculated to determine the phase angle of each reflection. Subsequently, the structure of the HCV polymerase can be determined by obtaining the electron density.

These calculation can be performed using program software DENZO, Shelx, MLPHARE, SHARP, DM, O, etc.

It is known that in general even if a structural coordinate for the location of each atom is changed to some extent on a computer, the structure

does not largely change and the protein activity is not inactivated. Therefore, the structure coordinate essentially equivalent to that for the HCV polymerase of the present invention includes derivative coordinates prepared by artificially processing the coordinate of the HCV polymerase. Such derivative coordinates preferably show residual mean square deviation within the range of $\pm 0.5 \text{ \AA}$ or less, and more preferably within the range of $\pm 0.2 \text{ \AA}$ or less, when the derivative coordinate is overlapped on the original structural coordinate so as to fit the locations of the atoms.

iii) Determination of "active site" and "RNA binding cleft" of the HCV polymerase

The active site of the HCV polymerase can be identified or deduced from the three-dimensional structure obtained by the crystal structure analysis of the HCV polymerase and the amino acid sequence. For identification and deduction, the amino acid sequence and the three-dimensional structure of a known polypeptide with the similar function can be referred.

From the obtained three-dimensional structure, a site which can be a target for inhibition of the HCV polymerase activity can be estimated in addition to the active site. The coordinate for the HCV polymerase obtained as a result of the structure analysis can be used, for example, for the following purposes:

- (a) analysis of the crystal structure of the HCV polymerase variant;
- (b) analysis of the crystal structure of the cocomplex composed of the HCV polymerase and the inhibitor; and,
- (c) evaluation of the complementarity of a test compound with the active site and/or the RNA binding cleft of the HCV polymerase.

iv) Crystal structure analysis of a variant or a cocomplex of the HCV polymerase

Based on the structural coordinates for the HCV polymerase shown in Tables 2 and 3, the crystal structure of a variant or a cocomplex of HCV polymerase can be determined. The structural coordinate for the cocomplex can be important information for improving the quality of designing/evaluating a compound having the complementarity with the active site and/or the RNA binding cleft of the HCV polymerase.

In the molecular replacement method, rotational function is calculated

from the crystal diffraction intensity data of the variant or the cocomplex of the HCV polymerase to determine the orientation of the molecule, and the location of the molecule is determined by calculating the translational function (Acta Crystallogr., 23, 544, 1967).

This method can be performed by using program software Amore of CCP4, Alm of CCP4 (Council for the Central Laboratory of the Research Councils), etc.

v) Designing of HCV polymerase inhibitors and evaluation of the HCV polymerase-inhibitory activity.

Since the active site of the HCV polymerase is the RNA replication site, a compound having the structural complementarity with the active site would inhibit the polymerase activity.

A compound having the complementarity with a site which can be a target for the inhibition of the HCV polymerase activity, for example, the RNA binding cleft, in addition to the active site, is presumed to indirectly inhibit the polymerase activity.

The inner space of the Palm domain is not involved in RNA replication, but presumably is the gap generated when the RNA is replicated. Therefore a compound having the structural complementarity with the inner space of the Palm domain is estimated to indirectly inhibit the polymerase activity.

Such three-dimensional structural information on the active site and the RNA binding cleft is important for designing/identifying HCV polymerase inhibitors by computers and such. Specifically, the complementarity of HCV polymerase inhibitors with the active site and/or RNA binding cleft, for example, the binding stability, can be compared by computers and the like means. A leading compound having the complementarity with the active site and/or the RNA binding cleft, and the derivative peripheral compounds can be rationally designed. Furthermore, in synthesis experiments, useless syntheses can be obviated, and actual evaluation of enzymes can be efficiently performed.

The complementarity with the active site and/or the RNA binding cleft can be determined, for example, by inputting the structural coordinates of the HCV polymerase and of a test compound to virtual screening programs, such as DOCK4 (UCSF), etc., using computers, and obtaining the state in which the test compound is incorporated into the active site and/or the RNA binding cleft

of the HCV polymerase, as a numerical value stable in terms of conformation and energy, or as the visual model. Moreover, the complementarity of the test compound can be obtained using a part of the structural coordinate for the HCV polymerase in the same manner.

As a virtual screening program, FLEXY DOCK (Tripos) can be used in addition to DOCK4.

The structural coordinate for the test compound is available on a database for the three-dimensional structure of the chemical compounds. Alternatively the coordinate can be obtained by calculating the conformation using program software such as Quanta (MSI), Sybyl (Tripos), Insight II (MSI), etc.

The HCV polymerase-inhibitory activity can be evaluated by comparing the thus-obtained complementarity of the test compound with the active site and/or the RNA binding cleft of the HCV polymerase.

The molecule of an inhibitor can be designed so as to have the complementarity with the active site and/or the RNA binding cleft, based on the structure of the test compound. The molecules can be designed using the above program software Quanta, Sybyl, Insight II, DOCK4, FLEXY, DOCK, etc.

vi) Actual evaluation of the HCV polymerase-inhibitory activity.

The HCV polymerase-inhibitory activity can be measured by obtaining a compound having the complementarity with the active site and/or the RNA binding site of the HCV polymerase, evaluated by the above virtual screening, and contacting the obtained compound with the HCV polymerase in the presence of a template RNA and a substrate ribonucleoside triphosphate (rNTP).

The present invention enables designing or identifying HCV polymerase inhibitors by computers and such, and thus provides methodologies of rational designing of compounds and their analogues. Moreover, this invention enables efficiently evaluating the HCV polymerase-inhibitory activity, and thus provides efficient evaluation method of the HCV polymerase-inhibitory activity by the combination use of designing or identification by computers and the like means.

The present invention is illustrated in detail below with reference to the Examples, but is not construed being limited thereto.

EXAMPLE 1Expression and purification of the native HCV polymerase (NS5B₅₇₀)

The DNA fragment comprising the histidine tag consisting of the amino acid sequence of GSHHHHHH at the C-terminus (SEQ ID NO: 2) of NS5B was prepared by PCR using pDM22 into which cDNA of HCV-BK type virus was introduced, purchased from Research Foundation for Microbial Diseases of Osaka University, as a template, and a set of primers 5BNde1FW (SEQ ID NO: 4) and 5B570HRV (SEQ ID NO: 5). The resulting fragment was inserted into pCR2.1 vector (INVITROGEN), the sequence was confirmed, and about 1.8 kDa fragment was obtained by partial digestion with *Nde*I and *Eco*R1.

The thus-obtained fragment was inserted into the *Nde*I and *Eco*R1 sites in pET17b vector comprising T7 promoter (NOVAGEN), and the vector was used to transform *E. coli* BL21 (DE3) (NOVAGEN).

The transformants were cultured in 2xYT medium at 30°C. When OD620 reached 0.8 to 1.0, IPTG (Nacalai Tesque) was added thereto to a final concentration of 0.5 mM, and the transformants were further incubated at 30°C for 3 hours to induce production of the target protein.

The harvested cells were disrupted with a microfluidizer and the soluble fraction was isolated and purified by subsequently performing Ni-NTA agarose (QIAGEN) column chromatography, Mono-S5/5 (PHARMACIA) column chromatography, and gel filtration with Sephacryl S-200 (PHARMACIA).

In the amino acid sequence of the obtained native HCV polymerase, methionine at the N-terminus was missing. The amino acid sequence of the obtained NS5B₅₇₀ was the amino acids 1 - 570 of the amino acid sequence shown in SEQ ID NO: 1, to which the histidine tag was added. In the same manner, NS5B₅₆₂, NS5B₅₄₄, NS5B₅₃₆, NS5B₅₃₁, and NS5B₅₀₁ were obtained using primers 5B552HRV (SEQ ID NO: 6), 5B544HRV (SEQ ID NO: 7), 5B536HRV (SEQ ID NO: 8), 5B531HRV (SEQ ID NO: 9), and 5B591HRV (SEQ ID NO: 10), respectively. The amino acid sequence of the histidine tag in the obtained NS5B₅₄₄ was GSHHDDHHH.

NS5B₅₉₁ comprising the full length wild-type NS5B was purified by adding a detergent (CHAPS) and glycerol, and using the poly(U)-sepharose 4B (PHARMACIA) column chromatography in addition to the above column chromatographies.

Expression and purification of selenomethionine

In the same manner as in the expression and purification of the native HCV polymerase, the 1.8 kDa fragment obtained from pDM22 was inserted into *Nde*I and *Eco*R1 sites of pET17b (NOVAGEN), which was used to transform *E. coli* B834 (DE3) (NOVAGEN).

The transformants were cultured in the medium for selenomethionine substitution mentioned below at 30°C. When OD620 reached 0.8 to 1.0, IPTG was added thereto to a final concentration of 0.5 mM, and the transformants were further cultured at 30 °C for 3 hours to induce the production of the target protein. The soluble fraction was purified in the same manner as the native HCV polymerase.

Composition of the medium for selenomethionine substitution

1. Amino acids (g/ml)

15	Ala	1.50
	Arg	1.75
	Asp	1.20
	Cys • HCl/H ₂ O	0.10
	Glu	2.00
20	Gln	1.00
	Gly	1.63
	His	0.18
	Ile	0.70
25	Leu	0.70
	Lys • HCl	1.26
	Phe	0.40
	Pro	0.30
	Ser	6.25
30	Thr	0.70
	Tyr	0.50
	Val	0.70

2. Salts (g/ml)

35	Adenosine	1.00
	Guanosine	1.33
	Thymine	0.33

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Crystallization of the HCV polymerase

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Protein solution: NS5B₅₇₀ dissolved in 5 mM dithiothreitol (DTT) solution to 10 ± 5 mg/ml.

Precipitation reagent solution: containing 21 to 28% (w/v) polyethylene glycol 4000, 0.2 to 0.35 M ammonium acetate, 0.1 M sodium acetate, 0.02 M TES buffer (N-tris(hydroxymethyl)methyl-2-aminoethanesulfonic acid, pH 6.0 to 7.5).

Crystallization temperature: $22 \pm 2^\circ\text{C}$

Conditions for crystallization of NS5B₆₄₄

Protein solution: NS5B₆₄₄ dissolved in 5 mM dithiothreitol (DTT) solution to 10 ± 3 mg/ml.

Precipitation reagent solution: the solution containing 2.0 to 5.0% (w/v) polyethylene glycol 8000, 5% (v/v) isopropanol, 0.1 M sodium citrate buffer (pH 5.5 to 6.5).

Crystallization temperature: $4 \pm 2^\circ\text{C}$

The crystals of NS5B₆₄₄, NS5B₆₃₈, and NS5B₆₃₁ were obtained in the same manner.

Table 1 shows the crystallographical parameters for NS5B₆₇₀ and NS5B₆₄₄. The crystallographical parameters for NS5B₆₃₈ and NS5B₆₃₁ were similar to those for NS5B₆₄₄.

Table 1. Crystallographic parameters

Crystal	Space group	Lattice constants	Number of independent molecule in asymmetric unit
NS5B ₆₇₀	P4 ₃ 2 ₁ 2	a=b=63.7(±0.7) Å c=262.9(±3.0) Å $\alpha = \beta = \gamma = 90^\circ$	1
NS5B ₆₄₄	P2 ₁ 2 ₁ 2	a=67.6(±0.7) Å b=95.9(±1.0) Å c=97.6(±1.0) Å $\alpha = \beta = \gamma = 90^\circ$	1

EXAMPLE 3

Crystal structure analysis of the HCV polymerase

The crystals of the native HCV polymerase (NS5B₆₇₀) were soaked in the precipitation reagent solution used in the crystallization of NS5B₆₇₀

described above containing heavy atoms, such as platinum, uranium, or osmium, to obtain the heavy atom substitution products.

The selenomethionine HCV polymerase was crystallized by vapor diffusion in the same manner described above.

Diffraction intensity of the obtained platinum heavy atom substitution product, uranium heavy atom substitution product, and osmium heavy atom substitution product of the native HCV polymerase crystal, the native polymerase crystal, as well as the selenomethionine HCV polymerase crystal were measured using Raxis Ilc (Rigaku), and BL6B of synchrotron facility KEK-PF, and BL45XU of SPring-8.

The X-ray diffraction data for the platinum heavy atom substitution product, the uranium heavy atom substitution product, and the osmium heavy atom substitution product were processed with DENSO (HKL) and SCALA, FHSCAL, SCALEIT of CCP4 program (Council for the Central Laboratory of the Research Councils). The scale of data was adjusted to that of the diffraction intensity of the native HCV polymerase (NS5B₅₇₀) crystal so that the diffraction intensity of the products could be compared with each other. The first locations of the heavy atoms were determined processing the data of the uranium heavy atom substitution product, the osmium heavy atom substitution product, and the native HCV polymerase (NS5B₅₇₀) crystal with the program software Shelx (Professor Sheldrick; Crystallographic Computing 3, Clarendon Press, Oxford 184 - 189 (1985)). Subsequently, the accurate locations of each heavy atom were determined using the program software MLPHARE in CCP4 and SHARP (Laboratory of Molecular Biology) to calculate the initial phase angles. The improvement of the initial phase and expansion of the phase within 2.5 Å were calculated using the program software DM in CCP4 to prepare the Fourier map.

The selenomethionine HCV polymerase (NS5B₅₇₀) corresponds to the amino acid sequence of SEQ ID NO: 1 in which 12 methionine residues are replaced with selenomethionines. The differential Fourier map was prepared for this selenomethionine HCV polymerase using the phase information described above. The differential Fourier map of the diffraction data measured at the X-ray wave length $\lambda = 1.0400\text{\AA}$, and the diffraction intensity data measured at $\lambda = 0.9797\text{\AA}$, in which 11 peaks corresponding to a selenium atom were confirmed, was used as a guide for the structure determination.

The structure of the HCV polymerase was determined based on the obtained Fourier map using the program software O (DatOno AB).

Refinement was performed using torsion angle or maximum likelihood refinement of the program software X-PLOR98 (MSI). Ramachandran plot
 5 obtained by using the program software PROCHECK (J. Appl. Cryst. 26, 283-290, 1993) confirmed that there was no amino acid residue with unacceptable structure. The structural coordinates were shown in Table 2. Each symbol in Tables means as follows.

(Atom type: from the left, the serial numbers of atoms contained in the
 10 coordinates, types of atoms and location of the atoms in amino acids, numbers: amino acid residue number of amino acids comprising the atoms, X, Y, and Z: coordinates of the atoms, Occ: occupancy, B: temperature factor)

The structural coordinate of NS5B₅₄₄ in NS5B₅₄₄, NS5B₅₃₆ and NS5B₅₃₁
 15 obtained by the molecular replacement method was shown in Table 3. The structural coordinates of NS5B₅₃₆ and NS5B₅₃₁ were similar to that shown in Table 3.

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Table 2

		atom type numbers			X	Y	Z	Occ	B
5	atom	1	CB	SER	1	24.595	6.355	-7.700	1.00 14.36
	atom	2	OG	SER	1	24.403	6.849	-6.395	1.00 33.57
	atom	3	C	SER	1	24.205	3.980	-7.261	1.00 18.80
	atom	4	O	SER	1	23.777	3.593	-6.173	1.00 22.06
	atom	5	N	SER	1	22.311	5.540	-7.354	1.00 17.96
10	atom	6	CA	SER	1	23.641	5.209	-7.924	1.00 16.04
	atom	7	N	MET	2	25.181	3.368	-7.917	1.00 19.98
	atom	8	CA	MET	2	25.812	2.175	-7.382	1.00 17.12
	atom	9	CB	MET	2	26.317	1.276	-8.522	1.00 14.48
	atom	10	CG	MET	2	25.215	0.731	-9.392	1.00 12.07
15	atom	11	SD	MET	2	24.201	-0.549	-8.622	1.00 14.36
	atom	12	CE	MET	2	25.522	-1.728	-8.316	1.00 15.13
	atom	13	C	MET	2	26.976	2.612	-6.501	1.00 16.76
	atom	14	O	MET	2	27.731	3.510	-6.858	1.00 19.33
	atom	15	N	SER	3	27.092	1.988	-5.341	1.00 16.24
20	atom	16	CA	SER	3	28.172	2.277	-4.411	1.00 15.30
	atom	17	CB	SER	3	28.103	1.275	-3.252	1.00 10.19
	atom	18	OG	SER	3	28.201	-0.061	-3.723	1.00 12.95
	atom	19	C	SER	3	29.522	2.145	-5.150	1.00 14.45
	atom	20	O	SER	3	30.470	2.880	-4.885	1.00 13.89
25	atom	21	N	TYR	4	29.593	1.196	-6.075	1.00 14.55
	atom	22	CA	TYR	4	30.808	0.968	-6.849	1.00 19.90
	atom	23	CB	TYR	4	31.730	-0.024	-6.161	1.00 23.29
	atom	24	CG	TYR	4	32.040	0.242	-4.734	1.00 25.80
	atom	25	CD1	TYR	4	31.257	-0.317	-3.714	1.00 23.72
30	atom	26	CE1	TYR	4	31.615	-0.171	-2.388	1.00 23.05
	atom	27	CD2	TYR	4	33.180	0.958	-4.387	1.00 23.13
	atom	28	CE2	TYR	4	33.542	1.108	-3.067	1.00 26.87
	atom	29	CZ	TYR	4	32.760	0.533	-2.075	1.00 23.63
	atom	30	OH	TYR	4	33.171	0.637	-0.772	1.00 29.59
35	atom	31	C	TYR	4	30.620	0.399	-8.248	1.00 16.78
	atom	32	O	TYR	4	29.610	-0.230	-8.578	1.00 12.24

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	atom	33	N	THR	5	31.653	0.599	-9.048	1.00	16.02
	atom	34	CA	THR	5	31.695	0.049	-10.381	1.00	18.47
	atom	35	CB	THR	5	31.527	1.110	-11.463	1.00	18.54
	atom	36	OG1	THR	5	30.136	1.399	-11.615	1.00	14.33
5	atom	37	CG2	THR	5	32.067	0.600	-12.796	1.00	21.94
	atom	38	C	THR	5	33.076	-0.534	-10.449	1.00	16.89
	atom	39	O	THR	5	34.049	0.146	-10.159	1.00	21.07
	atom	40	N	TRP	6	33.168	-1.803	-10.811	1.00	17.19
	atom	41	CA	TRP	6	34.469	-2.441	-10.892	1.00	15.52
10	atom	42	CB	TRP	6	34.434	-3.740	-10.096	1.00	13.26
	atom	43	CG	TRP	6	33.924	-3.575	-8.682	1.00	14.65
	atom	44	CD2	TRP	6	34.619	-2.966	-7.586	1.00	7.71
	atom	45	CE2	TRP	6	33.795	-3.085	-6.448	1.00	13.81
	atom	46	CE3	TRP	6	35.860	-2.328	-7.459	1.00	12.05
15	atom	47	CD1	TRP	6	32.734	-4.026	-8.178	1.00	14.49
	atom	48	NE1	TRP	6	32.653	-3.737	-6.831	1.00	18.73
	atom	49	CZ2	TRP	6	34.171	-2.597	-5.202	1.00	14.72
	atom	50	CZ3	TRP	6	36.238	-1.839	-6.220	1.00	13.25
	atom	51	CH2	TRP	6	35.392	-1.976	-5.105	1.00	15.70
20	atom	52	C	TRP	6	34.900	-2.736	-12.330	1.00	17.14
	atom	53	O	TRP	6	34.073	-3.074	-13.171	1.00	12.10
	atom	54	N	THR	7	36.190	-2.577	-12.616	1.00	19.22
	atom	55	CA	THR	7	36.697	-2.923	-13.936	1.00	19.75
	atom	56	CB	THR	7	38.062	-2.269	-14.251	1.00	18.95
25	atom	57	OG1	THR	7	39.045	-2.708	-13.301	1.00	11.09
	atom	58	CG2	THR	7	37.945	-0.729	-14.230	1.00	7.76
	atom	59	C	THR	7	36.890	-4.426	-13.763	1.00	27.76
	atom	60	O	THR	7	35.956	-5.142	-13.383	1.00	30.65
	atom	61	N	GLY	8	38.092	-4.919	-14.005	1.00	32.30
30	atom	62	CA	GLY	8	38.318	-6.348	-13.830	1.00	30.63
	atom	63	C	GLY	8	39.469	-6.601	-12.880	1.00	25.34
	atom	64	O	GLY	8	39.624	-7.688	-12.327	1.00	26.59
	atom	65	N	ALA	9	40.259	-5.555	-12.692	1.00	18.42
	atom	66	CA	ALA	9	41.429	-5.567	-11.852	1.00	20.57
35	atom	67	CB	ALA	9	41.998	-4.159	-11.757	1.00	21.71
	atom	68	C	ALA	9	41.237	-6.140	-10.454	1.00	25.44

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5	atom	69	O	ALA	9	40.258	-5.864	-9.739	1.00	28.28
	atom	70	N	LEU	10	42.212	-6.942	-10.074	1.00	23.65
	atom	71	CA	LEU	10	42.230	-7.567	-8.784	1.00	24.29
	atom	72	CB	LEU	10	43.171	-8.770	-8.827	1.00	23.79
	atom	73	CG	LEU	10	42.615	-10.071	-9.422	1.00	21.37
	atom	74	CD1	LEU	10	42.033	-10.895	-8.285	1.00	22.12
	atom	75	CD2	LEU	10	41.549	-9.790	-10.488	1.00	20.05
	atom	76	C	LEU	10	42.778	-6.525	-7.840	1.00	26.02
10	atom	77	O	LEU	10	43.620	-5.716	-8.243	1.00	26.63
	atom	78	N	ILE	11	42.290	-6.503	-6.601	1.00	26.01
	atom	79	CA	ILE	11	42.839	-5.557	-5.647	1.00	24.74
	atom	80	CB	ILE	11	41.995	-5.462	-4.382	1.00	25.59
15	atom	81	CG2	ILE	11	42.515	-4.345	-3.515	1.00	26.49
	atom	82	CG1	ILE	11	40.528	-5.217	-4.745	1.00	30.67
	atom	83	CD1	ILE	11	40.185	-3.786	-4.986	1.00	26.57
	atom	84	C	ILE	11	44.172	-6.226	-5.341	1.00	23.05
	atom	85	O	ILE	11	44.216	-7.424	-5.107	1.00	21.67
	atom	86	N	THR	12	45.262	-5.475	-5.368	1.00	24.58
20	atom	87	CA	THR	12	46.565	-6.085	-5.145	1.00	25.76
	atom	88	CB	THR	12	47.490	-5.739	-6.291	1.00	22.73
	atom	89	OG1	THR	12	47.462	-4.324	-6.502	1.00	22.66
	atom	90	CG2	THR	12	47.039	-6.450	-7.548	1.00	19.62
25	atom	91	C	THR	12	47.300	-5.754	-3.857	1.00	26.55
	atom	92	O	THR	12	47.194	-4.652	-3.335	1.00	27.29
	atom	93	N	PRO	13	48.059	-6.726	-3.330	1.00	31.02
	atom	94	CD	PRO	13	48.217	-8.089	-3.879	1.00	32.32
	atom	95	CA	PRO	13	48.829	-6.543	-2.096	1.00	30.95
	atom	96	CB	PRO	13	49.042	-7.965	-1.601	1.00	27.26
30	atom	97	CG	PRO	13	49.111	-8.774	-2.864	1.00	31.67
	atom	98	C	PRO	13	50.152	-5.855	-2.417	1.00	34.84
	atom	99	O	PRO	13	50.739	-6.101	-3.471	1.00	29.50
	atom	100	N	CYS	14	50.613	-4.986	-1.520	1.00	39.99
35	atom	101	CA	CYS	14	51.891	-4.302	-1.727	1.00	42.73
	atom	102	CB	CYS	14	51.794	-2.816	-1.347	1.00	44.03
	atom	103	SG	CYS	14	50.790	-2.471	0.117	1.00	45.82
	atom	104	C	CYS	14	52.956	-4.973	-0.868	1.00	44.38

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5	atom	105	O	CYS	14	54.141	-5.004	-1.220	1.00	46.34
	atom	106	N	ALA	15	52.518	-5.514	0.264	1.00	45.12
	atom	107	CA	ALA	15	53.422	-6.178	1.198	1.00	44.03
	atom	108	CB	ALA	15	53.231	-5.608	2.608	1.00	40.66
	atom	109	C	ALA	15	53.183	-7.677	1.216	1.00	42.16
	atom	110	O	ALA	15	52.165	-8.170	0.713	1.00	40.93
	atom	111	N	ALA	16	54.144	-8.410	1.765	1.00	36.85
	atom	112	CA	ALA	16	53.971	-9.837	1.884	1.00	32.86
	atom	113	CB	ALA	16	55.234	-10.469	2.415	1.00	26.99
	atom	114	C	ALA	16	52.868	-9.874	2.934	1.00	33.29
10	atom	115	O	ALA	16	52.869	-9.064	3.862	1.00	37.11
	atom	116	N	GLU	17	51.898	-10.760	2.785	1.00	32.39
	atom	117	CA	GLU	17	50.851	-10.833	3.789	1.00	26.32
	atom	118	CB	GLU	17	49.513	-10.306	3.265	1.00	30.86
	atom	119	CG	GLU	17	49.528	-9.677	1.895	1.00	29.77
15	atom	120	CD	GLU	17	48.157	-9.707	1.254	1.00	33.50
	atom	121	OE1	GLU	17	47.415	-8.711	1.424	1.00	32.53
	atom	122	OE2	GLU	17	47.819	-10.723	0.595	1.00	32.84
	atom	123	C	GLU	17	50.679	-12.255	4.276	1.00	24.51
	atom	124	O	GLU	17	50.514	-13.188	3.485	1.00	16.59
20	atom	125	N	GLU	18	50.739	-12.385	5.600	1.00	26.82
	atom	126	CA	GLU	18	50.604	-13.643	6.320	1.00	27.85
	atom	127	CB	GLU	18	51.444	-13.571	7.589	1.00	34.84
	atom	128	CG	GLU	18	52.921	-13.830	7.394	1.00	42.40
	atom	129	CD	GLU	18	53.516	-14.582	8.566	1.00	45.99
25	atom	130	OE1	GLU	18	54.476	-14.061	9.171	1.00	45.15
	atom	131	OE2	GLU	18	53.013	-15.692	8.880	1.00	44.59
	atom	132	C	GLU	18	49.151	-13.868	6.708	1.00	29.21
	atom	133	O	GLU	18	48.451	-12.931	7.085	1.00	28.56
	atom	134	N	SER	19	48.694	-15.111	6.668	1.00	31.66
30	atom	135	CA	SER	19	47.304	-15.374	7.022	1.00	33.52
	atom	136	CB	SER	19	46.517	-15.684	5.751	1.00	31.74
	atom	137	OG	SER	19	47.196	-16.652	4.981	1.00	28.18
	atom	138	C	SER	19	47.120	-16.510	8.036	1.00	36.81
	atom	139	O	SER	19	46.005	-16.787	8.491	1.00	37.53
35	atom	140	N	LYS	20	48.215	-17.175	8.379	1.00	37.96

5	atom	141	CA	LYS	20	48.176	-18.280	9.330	1.00	34.72
	atom	142	CB	LYS	20	48.764	-19.534	8.677	1.00	34.98
	atom	143	CG	LYS	20	47.728	-20.526	8.181	1.00	37.63
	atom	144	CD	LYS	20	48.233	-21.968	8.303	1.00	45.68
	atom	145	CE	LYS	20	49.654	-22.140	7.741	1.00	50.03
	atom	146	NZ	LYS	20	49.751	-23.135	6.616	1.00	51.95
	atom	147	C	LYS	20	49.004	-17.877	10.550	1.00	34.35
	atom	148	O	LYS	20	50.126	-17.384	10.398	1.00	34.45
10	atom	149	N	LEU	21	48.463	-18.070	11.751	1.00	33.05
	atom	150	CA	LEU	21	49.199	-17.693	12.962	1.00	32.36
	atom	151	CB	LEU	21	48.537	-18.280	14.226	1.00	35.12
	atom	152	CG	LEU	21	49.026	-17.899	15.644	1.00	28.57
15	atom	153	CD1	LEU	21	50.301	-17.098	15.601	1.00	29.37
	atom	154	CD2	LEU	21	47.943	-17.094	16.349	1.00	27.17
	atom	155	C	LEU	21	50.638	-18.181	12.883	1.00	29.79
	atom	156	O	LEU	21	50.882	-19.388	12.784	1.00	26.13
20	atom	157	N	PRO	22	51.600	-17.237	12.889	1.00	30.54
	atom	158	CD	PRO	22	51.282	-15.800	12.861	1.00	31.66
	atom	159	CA	PRO	22	53.052	-17.454	12.832	1.00	32.01
	atom	160	CB	PRO	22	53.629	-16.041	12.738	1.00	33.70
	atom	161	CG	PRO	22	52.499	-15.210	12.205	1.00	30.75
	atom	162	C	PRO	22	53.593	-18.209	14.041	1.00	35.09
	atom	163	O	PRO	22	54.678	-17.897	14.540	1.00	39.45
	atom	164	N	ILE	23	52.802	-19.184	14.496	1.00	33.92
25	atom	165	CA	ILE	23	53.081	-20.079	15.616	1.00	29.63
	atom	166	CB	ILE	23	52.899	-21.539	15.135	1.00	32.30
30	atom	167	CG2	ILE	23	54.222	-22.295	15.156	1.00	33.90
	atom	168	CG1	ILE	23	51.835	-22.229	15.979	1.00	31.35
	atom	169	CD1	ILE	23	51.895	-23.740	15.884	1.00	35.04
	atom	170	C	ILE	23	54.440	-19.889	16.298	1.00	32.72
	atom	171	O	ILE	23	55.500	-20.012	15.682	1.00	29.52
	atom	172	N	ASN	24	54.393	-19.605	17.595	1.00	37.99
	atom	173	CA	ASN	24	55.606	-19.343	18.359	1.00	39.02
	atom	174	CB	ASN	24	55.800	-17.845	18.534	1.00	37.86
35	atom	175	CG	ASN	24	57.203	-17.430	18.268	1.00	41.03
	atom	176	OD1	ASN	24	58.004	-18.220	17.745	1.00	37.66

5	atom	177	ND2	ASN	24	57.532	-16.187	18.620	1.00	38.75
	atom	178	C	ASN	24	55.628	-19.937	19.735	1.00	39.37
	atom	179	O	ASN	24	54.584	-20.238	20.304	1.00	41.52
	atom	180	N	ALA	25	56.838	-20.069	20.273	1.00	39.67
	atom	181	CA	ALA	25	57.032	-20.577	21.622	1.00	37.68
	atom	182	CB	ALA	25	58.497	-20.452	22.028	1.00	42.61
	atom	183	C	ALA	25	56.180	-19.693	22.506	1.00	33.96
	atom	184	O	ALA	25	55.320	-20.172	23.241	1.00	35.81
10	atom	185	N	LEU	26	56.426	-18.394	22.410	1.00	30.24
	atom	186	CA	LEU	26	55.694	-17.405	23.185	1.00	29.54
	atom	187	CB	LEU	26	56.256	-16.005	22.926	1.00	26.07
	atom	188	CG	LEU	26	57.616	-15.608	23.523	1.00	25.12
15	atom	189	CD1	LEU	26	57.466	-14.286	24.238	1.00	26.71
	atom	190	CD2	LEU	26	58.140	-16.676	24.475	1.00	25.70
	atom	191	C	LEU	26	54.216	-17.412	22.854	1.00	32.07
	atom	192	O	LEU	26	53.381	-17.282	23.747	1.00	39.46
	atom	193	N	SER	27	53.886	-17.573	21.576	1.00	33.97
	atom	194	CA	SER	27	52.490	-17.565	21.148	1.00	34.97
	atom	195	CB	SER	27	52.411	-17.627	19.619	1.00	38.54
	atom	196	OG	SER	27	51.508	-18.642	19.187	1.00	42.65
20	atom	197	C	SER	27	51.726	-18.735	21.752	1.00	36.47
	atom	198	O	SER	27	50.501	-18.707	21.868	1.00	34.83
	atom	199	N	ASN	28	52.460	-19.764	22.150	1.00	37.51
	atom	200	CA	ASN	28	51.835	-20.944	22.713	1.00	38.99
25	atom	201	CB	ASN	28	52.682	-22.177	22.421	1.00	46.35
	atom	202	CG	ASN	28	51.850	-23.328	21.928	1.00	51.03
	atom	203	OD1	ASN	28	50.703	-23.134	21.530	1.00	53.49
	atom	204	ND2	ASN	28	52.409	-24.535	21.956	1.00	55.66
30	atom	205	C	ASN	28	51.639	-20.788	24.201	1.00	37.33
	atom	206	O	ASN	28	50.889	-21.533	24.834	1.00	31.98
	atom	207	N	SER	29	52.333	-19.818	24.771	1.00	37.14
	atom	208	CA	SER	29	52.176	-19.579	26.188	1.00	35.88
35	atom	209	CB	SER	29	53.123	-18.461	26.638	1.00	33.82
	atom	210	OG	SER	29	52.498	-17.580	27.564	1.00	34.09
	atom	211	C	SER	29	50.712	-19.158	26.376	1.00	33.85
	atom	212	O	SER	29	50.021	-19.629	27.282	1.00	36.33

5	atom	213	N	LEU	30	50.239	-18.319	25.460	1.00	28.11
	atom	214	CA	LEU	30	48.890	-17.763	25.505	1.00	23.92
	atom	215	CB	LEU	30	48.927	-16.376	24.859	1.00	14.38
	atom	216	CG	LEU	30	47.593	-15.690	24.700	1.00	11.04
	atom	217	CD1	LEU	30	46.961	-15.499	26.069	1.00	12.59
10	atom	218	CD2	LEU	30	47.795	-14.352	23.974	1.00	13.47
	atom	219	C	LEU	30	47.731	-18.557	24.900	1.00	24.67
	atom	220	O	LEU	30	46.758	-18.876	25.586	1.00	20.27
	atom	221	N	LEU	31	47.830	-18.840	23.604	1.00	25.98
	atom	222	CA	LEU	31	46.793	-19.557	22.864	1.00	26.72
15	atom	223	CB	LEU	31	46.387	-18.738	21.643	1.00	28.09
	atom	224	CG	LEU	31	44.953	-18.895	21.141	1.00	31.75
	atom	225	CD1	LEU	31	44.349	-17.513	20.889	1.00	31.47
	atom	226	CD2	LEU	31	44.944	-19.712	19.870	1.00	30.70
	atom	227	C	LEU	31	47.341	-20.886	22.406	1.00	27.45
20	atom	228	O	LEU	31	48.538	-21.007	22.198	1.00	37.06
	atom	229	N	ARG	32	46.485	-21.880	22.222	1.00	27.60
	atom	230	CA	ARG	32	46.963	-23.188	21.796	1.00	31.35
	atom	231	CB	ARG	32	46.750	-24.208	22.917	1.00	33.85
	atom	232	CG	ARG	32	46.668	-25.659	22.465	1.00	44.85
25	atom	233	CD	ARG	32	46.596	-26.609	23.663	1.00	51.74
	atom	234	NE	ARG	32	47.614	-26.290	24.667	1.00	56.45
	atom	235	CZ	ARG	32	48.617	-27.098	25.014	1.00	59.99
	atom	236	NH1	ARG	32	48.751	-28.290	24.443	1.00	60.21
	atom	237	NH2	ARG	32	49.498	-26.711	25.932	1.00	61.46
30	atom	238	C	ARG	32	46.330	-23.700	20.502	1.00	33.99
	atom	239	O	ARG	32	46.925	-24.524	19.809	1.00	38.04
	atom	240	N	HIS	33	45.139	-23.213	20.173	1.00	30.07
	atom	241	CA	HIS	33	44.442	-23.641	18.967	1.00	29.00
	atom	242	CB	HIS	33	42.953	-23.794	19.268	1.00	23.73
35	atom	243	CG	HIS	33	42.637	-24.892	20.233	1.00	27.12
	atom	244	CD2	HIS	33	43.436	-25.784	20.868	1.00	25.66
	atom	245	ND1	HIS	33	41.346	-25.199	20.613	1.00	22.82
	atom	246	CE1	HIS	33	41.365	-26.233	21.434	1.00	23.60
	atom	247	NE2	HIS	33	42.621	-26.608	21.604	1.00	24.43
	atom	248	C	HIS	33	44.637	-22.637	17.821	1.00	34.47

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5	atom	249	O	HIS	33	43.676	-22.232	17.172	1.00	35.26
	atom	250	N	HIS	34	45.886	-22.255	17.572	1.00	37.29
	atom	251	CA	HIS	34	46.250	-21.284	16.533	1.00	40.45
	atom	252	CB	HIS	34	47.761	-21.260	16.385	1.00	43.17
	atom	253	CG	HIS	34	48.333	-22.600	16.057	1.00	48.92
	atom	254	CD2	HIS	34	48.895	-23.078	14.922	1.00	49.02
	atom	255	ND1	HIS	34	48.309	-23.654	16.945	1.00	53.07
	atom	256	CE1	HIS	34	48.830	-24.724	16.373	1.00	50.31
10	atom	257	NE2	HIS	34	49.194	-24.399	15.145	1.00	53.13
	atom	258	C	HIS	34	45.649	-21.494	15.141	1.00	40.69
	atom	259	O	HIS	34	45.682	-20.591	14.310	1.00	42.64
	atom	260	N	ASN	35	45.130	-22.681	14.866	1.00	40.62
	atom	261	CA	ASN	35	44.558	-22.921	13.556	1.00	41.61
	atom	262	CB	ASN	35	44.420	-24.420	13.298	1.00	39.60
	atom	263	CG	ASN	35	45.736	-25.055	12.878	1.00	42.24
	atom	264	OD1	ASN	35	46.077	-26.152	13.323	1.00	45.01
15	atom	265	ND2	ASN	35	46.488	-24.362	12.024	1.00	39.61
	atom	266	C	ASN	35	43.217	-22.224	13.382	1.00	41.88
	atom	267	O	ASN	35	42.741	-22.079	12.261	1.00	48.58
	atom	268	N	MET	36	42.617	-21.790	14.487	1.00	39.02
	atom	269	CA	MET	36	41.331	-21.085	14.466	1.00	34.47
	atom	270	CB	MET	36	40.600	-21.250	15.789	1.00	38.00
	atom	271	CG	MET	36	40.788	-22.577	16.439	1.00	38.32
	atom	272	SD	MET	36	39.272	-23.491	16.413	1.00	43.98
25	atom	273	CE	MET	36	38.050	-22.269	15.969	1.00	37.20
	atom	274	C	MET	36	41.542	-19.599	14.266	1.00	33.18
	atom	275	O	MET	36	40.592	-18.848	14.059	1.00	33.83
	atom	276	N	VAL	37	42.795	-19.180	14.357	1.00	28.33
	atom	277	CA	VAL	37	43.134	-17.785	14.222	1.00	30.04
	atom	278	CB	VAL	37	44.152	-17.391	15.307	1.00	30.45
	atom	279	CG1	VAL	37	44.675	-15.980	15.061	1.00	33.10
	atom	280	CG2	VAL	37	43.487	-17.485	16.676	1.00	27.52
30	atom	281	C	VAL	37	43.686	-17.529	12.834	1.00	32.08
	atom	282	O	VAL	37	44.552	-18.254	12.351	1.00	34.38
	atom	283	N	TYR	38	43.171	-16.498	12.182	1.00	33.37
	atom	284	CA	TYR	38	43.610	-16.178	10.831	1.00	32.41

5	atom	285	CB	TYR	38	42.694	-16.839	9.805	1.00	31.04
	atom	286	CG	TYR	38	41.321	-16.218	9.757	1.00	28.60
	atom	287	CD1	TYR	38	41.058	-15.127	8.934	1.00	28.40
	atom	288	CE1	TYR	38	39.777	-14.582	8.838	1.00	27.52
	atom	289	CD2	TYR	38	40.272	-16.746	10.498	1.00	27.69
	atom	290	CE2	TYR	38	38.988	-16.207	10.408	1.00	26.54
	atom	291	CZ	TYR	38	38.753	-15.129	9.574	1.00	28.08
	atom	292	OH	TYR	38	37.487	-14.617	9.456	1.00	33.47
10	atom	293	C	TYR	38	43.611	-14.691	10.571	1.00	30.86
	atom	294	O	TYR	38	43.168	-13.895	11.404	1.00	29.91
	atom	295	N	ALA	39	44.085	-14.331	9.384	1.00	26.58
	atom	296	CA	ALA	39	44.150	-12.939	8.993	1.00	26.36
15	atom	297	CB	ALA	39	45.583	-12.441	9.077	1.00	21.23
	atom	298	C	ALA	39	43.596	-12.759	7.582	1.00	30.17
	atom	299	O	ALA	39	43.787	-13.615	6.708	1.00	29.35
	atom	300	N	THR	40	42.886	-11.651	7.384	1.00	30.81
20	atom	301	CA	THR	40	42.303	-11.328	6.101	1.00	31.04
	atom	302	CB	THR	40	41.198	-10.268	6.229	1.00	30.42
	atom	303	OG1	THR	40	41.743	-9.070	6.790	1.00	29.82
	atom	304	CG2	THR	40	40.065	-10.778	7.099	1.00	20.31
	atom	305	C	THR	40	43.402	-10.782	5.201	1.00	33.39
	atom	306	O	THR	40	44.283	-10.055	5.659	1.00	36.59
	atom	307	N	THR	41	43.330	-11.144	3.923	1.00	33.19
25	atom	308	CA	THR	41	44.296	-10.735	2.915	1.00	31.53
	atom	309	CB	THR	41	45.318	-11.858	2.642	1.00	34.00
	atom	310	OG1	THR	41	44.629	-13.042	2.214	1.00	33.52
	atom	311	CG2	THR	41	46.105	-12.178	3.904	1.00	37.37
	atom	312	C	THR	41	43.586	-10.420	1.598	1.00	32.18
30	atom	313	O	THR	41	42.345	-10.474	1.518	1.00	28.34
	atom	314	N	SER	42	44.395	-10.097	0.584	1.00	30.60
	atom	315	CA	SER	42	43.950	-9.755	-0.776	1.00	28.87
	atom	316	CB	SER	42	45.160	-9.587	-1.682	1.00	30.94
35	atom	317	OG	SER	42	45.386	-8.232	-1.985	1.00	41.09
	atom	318	C	SER	42	43.078	-10.838	-1.386	1.00	25.21
	atom	319	O	SER	42	41.975	-10.598	-1.859	1.00	21.53
	atom	320	N	ARG	43	43.598	-12.049	-1.366	1.00	25.12

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5	atom	321	CA	ARG	43	42.898	-13.187	-1.922	1.00	24.36
	atom	322	CB	ARG	43	43.474	-14.464	-1.307	1.00	22.07
	atom	323	CG	ARG	43	44.756	-14.920	-1.980	1.00	35.37
	atom	324	CD	ARG	43	45.876	-15.237	-0.980	1.00	43.28
	atom	325	NE	ARG	43	46.643	-16.436	-1.347	1.00	45.15
	atom	326	CZ	ARG	43	47.970	-16.484	-1.484	1.00	47.79
	atom	327	NH1	ARG	43	48.717	-15.403	-1.289	1.00	48.79
	atom	328	NH2	ARG	43	48.557	-17.623	-1.826	1.00	49.62
	atom	329	C	ARG	43	41.372	-13.147	-1.756	1.00	21.27
10	atom	330	O	ARG	43	40.642	-13.709	-2.575	1.00	21.29
	atom	331	N	SER	44	40.892	-12.478	-0.707	1.00	21.05
	atom	332	CA	SER	44	39.455	-12.409	-0.431	1.00	17.85
	atom	333	CB	SER	44	39.181	-12.682	1.068	1.00	18.70
15	atom	334	OG	SER	44	39.495	-11.568	1.885	1.00	24.38
	atom	335	C	SER	44	38.798	-11.105	-0.868	1.00	9.35
	atom	336	O	SER	44	37.582	-11.024	-0.926	1.00	8.69
	atom	337	N	ALA	45	39.612	-10.101	-1.170	1.00	6.77
	atom	338	CA	ALA	45	39.136	-8.794	-1.635	1.00	12.00
20	atom	339	CB	ALA	45	40.271	-8.062	-2.347	1.00	10.65
	atom	340	C	ALA	45	37.948	-8.906	-2.595	1.00	16.23
	atom	341	O	ALA	45	37.045	-8.069	-2.600	1.00	24.10
	atom	342	N	GLY	46	37.978	-9.928	-3.437	1.00	19.30
	atom	343	CA	GLY	46	36.913	-10.115	-4.391	1.00	19.54
	atom	344	C	GLY	46	35.587	-10.419	-3.738	1.00	20.90
25	atom	345	O	GLY	46	34.567	-9.860	-4.135	1.00	23.71
	atom	346	N	LEU	47	35.592	-11.319	-2.755	1.00	22.91
	atom	347	CA	LEU	47	34.369	-11.688	-2.058	1.00	19.97
	atom	348	CB	LEU	47	34.678	-12.655	-0.931	1.00	23.98
	atom	349	CG	LEU	47	34.891	-14.108	-1.336	1.00	27.07
30	atom	350	CD1	LEU	47	36.076	-14.203	-2.281	1.00	26.74
	atom	351	CD2	LEU	47	35.114	-14.946	-0.092	1.00	23.16
	atom	352	C	LEU	47	33.739	-10.428	-1.484	1.00	22.24
	atom	353	O	LEU	47	32.527	-10.206	-1.604	1.00	25.16
	atom	354	N	ARG	48	34.577	-9.589	-0.888	1.00	17.98
35	atom	355	CA	ARG	48	34.102	-8.359	-0.289	1.00	19.39
	atom	356	CB	ARG	48	35.257	-7.600	0.361	1.00	22.15

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	atom	357	CG	ARG	48	34.848	-6.275	0.991	1.00	25.34
	atom	358	CD	ARG	48	33.665	-6.451	1.924	1.00	31.73
	atom	359	NE	ARG	48	33.968	-7.332	3.052	1.00	41.05
	atom	360	CZ	ARG	48	33.971	-6.954	4.332	1.00	44.95
5	atom	361	NH1	ARG	48	33.684	-5.697	4.672	1.00	44.28
	atom	362	NH2	ARG	48	34.265	-7.840	5.279	1.00	45.69
	atom	363	C	ARG	48	33.426	-7.448	-1.280	1.00	18.00
	atom	364	O	ARG	48	32.389	-6.861	-0.978	1.00	13.22
	atom	365	N	GLN	49	34.033	-7.336	-2.459	1.00	19.75
10	atom	366	CA	GLN	49	33.551	-6.474	-3.531	1.00	17.34
	atom	367	CB	GLN	49	34.394	-6.691	-4.778	1.00	23.31
	atom	368	CG	GLN	49	35.392	-5.599	-5.057	1.00	25.70
	atom	369	CD	GLN	49	36.457	-6.046	-6.035	1.00	32.79
	atom	370	OE1	GLN	49	36.875	-5.290	-6.915	1.00	32.01
15	atom	371	NE2	GLN	49	36.903	-7.287	-5.887	1.00	35.96
	atom	372	C	GLN	49	32.097	-6.705	-3.869	1.00	20.93
	atom	373	O	GLN	49	31.370	-5.769	-4.200	1.00	25.69
	atom	374	N	LYS	50	31.658	-7.951	-3.782	1.00	20.84
	atom	375	CA	LYS	50	30.276	-8.271	-4.084	1.00	20.89
20	atom	376	CB	LYS	50	30.129	-9.775	-4.339	1.00	22.67
	atom	377	CG	LYS	50	31.351	-10.432	-4.957	1.00	25.57
	atom	378	CD	LYS	50	31.347	-10.361	-6.464	1.00	28.52
	atom	379	CE	LYS	50	32.689	-9.833	-7.005	1.00	33.85
	atom	380	NZ	LYS	50	32.553	-8.461	-7.590	1.00	29.19
25	atom	381	C	LYS	50	29.288	-7.848	-3.008	1.00	20.77
	atom	382	O	LYS	50	28.196	-7.349	-3.304	1.00	20.61
	atom	383	N	LYS	51	29.667	-8.052	-1.753	1.00	28.30
	atom	384	CA	LYS	51	28.786	-7.733	-0.627	1.00	27.64
	atom	385	CB	LYS	51	29.338	-8.347	0.666	1.00	28.63
30	atom	386	CG	LYS	51	29.772	-9.809	0.570	1.00	34.26
	atom	387	CD	LYS	51	31.099	-10.036	1.324	1.00	39.78
	atom	388	CE	LYS	51	30.917	-10.860	2.597	1.00	41.29
	atom	389	NZ	LYS	51	29.487	-11.221	2.851	1.00	42.28
	atom	390	C	LYS	51	28.637	-6.239	-0.440	1.00	25.06
35	atom	391	O	LYS	51	27.693	-5.757	0.189	1.00	26.11
	atom	392	N	VAL	52	29.574	-5.505	-1.014	1.00	23.63

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	atom	393	CA	VAL	52	29.605	-4.063	-0.869	1.00	22.61
	atom	394	CB	VAL	52	31.070	-3.649	-0.616	1.00	19.17
	atom	395	CG1	VAL	52	31.729	-3.212	-1.894	1.00	17.90
	atom	396	CG2	VAL	52	31.131	-2.603	0.428	1.00	24.32
5	atom	397	C	VAL	52	29.024	-3.279	-2.054	1.00	19.94
	atom	398	O	VAL	52	28.875	-2.063	-1.995	1.00	19.73
	atom	399	N	THR	53	28.671	-3.996	-3.111	1.00	20.39
	atom	400	CA	THR	53	28.170	-3.397	-4.339	1.00	18.89
	atom	401	CB	THR	53	28.843	-4.061	-5.557	1.00	18.51
10	atom	402	OG1	THR	53	30.258	-3.831	-5.506	1.00	23.13
	atom	403	CG2	THR	53	28.285	-3.519	-6.855	1.00	15.71
	atom	404	C	THR	53	26.672	-3.478	-4.536	1.00	21.86
	atom	405	O	THR	53	26.113	-4.555	-4.677	1.00	22.43
	atom	406	N	PHE	54	26.015	-2.330	-4.585	1.00	22.23
15	atom	407	CA	PHE	54	24.577	-2.329	-4.806	1.00	20.95
	atom	408	CB	PHE	54	23.857	-2.852	-3.568	1.00	17.15
	atom	409	CG	PHE	54	24.485	-2.432	-2.299	1.00	15.48
	atom	410	CD1	PHE	54	24.290	-1.156	-1.804	1.00	21.00
	atom	411	CD2	PHE	54	25.313	-3.299	-1.607	1.00	28.94
20	atom	412	CE1	PHE	54	24.914	-0.738	-0.628	1.00	24.14
	atom	413	CE2	PHE	54	25.949	-2.898	-0.428	1.00	30.32
	atom	414	CZ	PHE	54	25.745	-1.608	0.059	1.00	29.70
	atom	415	C	PHE	54	24.134	-0.911	-5.120	1.00	21.37
	atom	416	O	PHE	54	24.959	0.001	-5.171	1.00	21.13
25	atom	417	N	ASP	55	22.833	-0.738	-5.319	1.00	20.70
	atom	418	CA	ASP	55	22.251	0.557	-5.628	1.00	20.89
	atom	419	CB	ASP	55	21.155	0.361	-6.695	1.00	19.59
	atom	420	CG	ASP	55	20.435	1.663	-7.079	1.00	20.07
	atom	421	OD1	ASP	55	21.080	2.589	-7.622	1.00	14.28
30	atom	422	OD2	ASP	55	19.206	1.743	-6.835	1.00	24.20
	atom	423	C	ASP	55	21.675	1.253	-4.372	1.00	23.84
	atom	424	O	ASP	55	21.070	0.624	-3.493	1.00	26.41
	atom	425	N	ARG	56	21.871	2.558	-4.289	1.00	17.80
	atom	426	CA	ARG	56	21.344	3.297	-3.177	1.00	16.51
35	atom	427	CB	ARG	56	22.467	4.039	-2.436	1.00	16.87
	atom	428	CG	ARG	56	23.525	3.130	-1.871	1.00	10.07

	atom	429	CD	ARG	56	24.710	3.082	-2.808	1.00	15.13
	atom	430	NE	ARG	56	25.652	4.167	-2.523	1.00	17.01
	atom	431	CZ	ARG	56	25.953	5.128	-3.389	1.00	28.89
	atom	432	NH1	ARG	56	25.388	5.152	-4.598	1.00	27.60
5	atom	433	NH2	ARG	56	26.838	6.053	-3.064	1.00	31.98
	atom	434	C	ARG	56	20.323	4.297	-3.659	1.00	15.89
	atom	435	O	ARG	56	20.638	5.136	-4.477	1.00	18.04
	atom	436	N	LEU	57	19.095	4.190	-3.152	1.00	21.41
	atom	437	CA	LEU	57	18.010	5.127	-3.466	1.00	19.39
10	atom	438	CB	LEU	57	16.760	4.398	-3.960	1.00	21.90
	atom	439	CG	LEU	57	16.814	3.732	-5.333	1.00	30.04
	atom	440	CD1	LEU	57	15.394	3.306	-5.717	1.00	23.84
	atom	441	CD2	LEU	57	17.411	4.701	-6.382	1.00	24.33
	atom	442	C	LEU	57	17.697	5.801	-2.125	1.00	22.57
15	atom	443	O	LEU	57	17.744	5.154	-1.063	1.00	21.40
	atom	444	N	GLN	58	17.360	7.083	-2.176	1.00	20.39
	atom	445	CA	GLN	58	17.082	7.850	-0.983	1.00	17.61
	atom	446	CB	GLN	58	18.271	8.781	-0.695	1.00	19.01
	atom	447	CG	GLN	58	19.212	8.352	0.413	1.00	18.78
20	atom	448	CD	GLN	58	20.304	9.377	0.649	1.00	19.26
	atom	449	OE1	GLN	58	20.684	10.114	-0.265	1.00	25.14
	atom	450	NE2	GLN	58	20.813	9.436	1.870	1.00	7.96
	atom	451	C	GLN	58	15.836	8.717	-1.136	1.00	18.94
	atom	452	O	GLN	58	15.714	9.465	-2.113	1.00	18.41
25	atom	453	N	VAL	59	14.928	8.631	-0.164	1.00	15.86
	atom	454	CA	VAL	59	13.726	9.464	-0.143	1.00	13.64
	atom	455	CB	VAL	59	12.432	8.635	-0.050	1.00	18.32
	atom	456	CG1	VAL	59	11.345	9.308	-0.842	1.00	12.43
	atom	457	CG2	VAL	59	12.665	7.228	-0.560	1.00	23.22
30	atom	458	C	VAL	59	13.872	10.308	1.120	1.00	11.72
	atom	459	O	VAL	59	13.692	9.831	2.226	1.00	10.53
	atom	460	N	LEU	60	14.231	11.566	0.947	1.00	14.06
	atom	461	CA	LEU	60	14.457	12.418	2.090	1.00	14.87
	atom	462	CB	LEU	60	15.545	13.433	1.767	1.00	12.50
35	atom	463	CG	LEU	60	16.894	12.787	1.394	1.00	17.55
	atom	464	CD1	LEU	60	17.892	13.910	1.096	1.00	11.66

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5	atom	465	CD2	LEU	60	17.414	11.848	2.527	1.00	2.00
	atom	466	C	LEU	60	13.206	13.103	2.595	1.00	18.51
	atom	467	O	LEU	60	12.423	13.669	1.825	1.00	16.16
	atom	468	N	ASP	61	13.067	13.057	3.917	1.00	18.47
	atom	469	CA	ASP	61	11.933	13.587	4.656	1.00	19.17
	atom	470	CB	ASP	61	11.621	12.612	5.784	1.00	26.43
	atom	471	CG	ASP	61	10.307	11.985	5.617	1.00	34.40
	atom	472	OD1	ASP	61	9.719	12.202	4.530	1.00	35.57
10	atom	473	OD2	ASP	61	9.871	11.295	6.560	1.00	37.74
	atom	474	C	ASP	61	12.000	14.976	5.287	1.00	9.45
	atom	475	O	ASP	61	13.036	15.610	5.330	1.00	11.81
	atom	476	N	ASP	62	10.856	15.400	5.808	1.00	8.67
15	atom	477	CA	ASP	62	10.717	16.659	6.541	1.00	13.85
	atom	478	CB	ASP	62	9.235	16.962	6.773	1.00	19.68
	atom	479	CG	ASP	62	8.622	17.785	5.653	1.00	24.90
	atom	480	OD1	ASP	62	9.193	18.828	5.278	1.00	29.35
	atom	481	OD2	ASP	62	7.557	17.388	5.146	1.00	36.92
	atom	482	C	ASP	62	11.430	16.417	7.901	1.00	11.46
20	atom	483	O	ASP	62	12.156	17.265	8.419	1.00	14.07
	atom	484	N	HIS	63	11.220	15.234	8.459	1.00	6.43
	atom	485	CA	HIS	63	11.879	14.842	9.683	1.00	7.74
	atom	486	CB	HIS	63	11.485	13.424	10.038	1.00	8.47
25	atom	487	CG	HIS	63	10.112	13.317	10.598	1.00	8.99
	atom	488	CD2	HIS	63	9.179	12.339	10.498	1.00	8.53
	atom	489	ND1	HIS	63	9.564	14.297	11.399	1.00	11.03
	atom	490	CE1	HIS	63	8.352	13.925	11.772	1.00	10.35
	atom	491	NE2	HIS	63	8.095	12.741	11.237	1.00	12.66
	atom	492	C	HIS	63	13.383	14.920	9.472	1.00	10.38
30	atom	493	O	HIS	63	14.125	15.294	10.370	1.00	16.98
	atom	494	N	TYR	64	13.830	14.574	8.269	1.00	11.90
	atom	495	CA	TYR	64	15.246	14.633	7.927	1.00	7.03
	atom	496	CB	TYR	64	15.477	13.834	6.642	1.00	9.53
35	atom	497	CG	TYR	64	16.891	13.867	6.083	1.00	6.78
	atom	498	CD1	TYR	64	17.815	12.885	6.415	1.00	5.13
	atom	499	CE1	TYR	64	19.105	12.925	5.916	1.00	14.54
	atom	500	CD2	TYR	64	17.294	14.884	5.250	1.00	2.00

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5	atom	537	CD2	LEU	68	21.824	19.079	7.713	1.00	12.32
	atom	538	C	LEU	68	19.613	20.246	9.855	1.00	18.34
	atom	539	O	LEU	68	20.681	20.691	10.259	1.00	18.28
	atom	540	N	LYS	69	18.513	20.991	9.722	1.00	18.88
	atom	541	CA	LYS	69	18.519	22.421	10.050	1.00	21.95
	atom	542	CB	LYS	69	17.152	23.064	9.750	1.00	19.48
	atom	543	CG	LYS	69	17.056	24.548	10.085	1.00	27.21
	atom	544	CD	LYS	69	17.951	25.421	9.167	1.00	38.86
10	atom	545	CE	LYS	69	18.436	26.718	9.847	1.00	41.07
	atom	546	NZ	LYS	69	19.792	26.593	10.505	1.00	38.52
	atom	547	C	LYS	69	18.909	22.668	11.512	1.00	21.81
	atom	548	O	LYS	69	19.668	23.597	11.806	1.00	20.33
15	atom	549	N	GLU	70	18.394	21.852	12.428	1.00	19.09
	atom	550	CA	GLU	70	18.749	22.029	13.832	1.00	15.47
	atom	551	CB	GLU	70	17.995	21.016	14.715	1.00	17.65
	atom	552	CG	GLU	70	16.613	21.489	15.235	1.00	10.96
	atom	553	CD	GLU	70	15.720	20.320	15.683	1.00	17.00
	atom	554	OE1	GLU	70	14.488	20.351	15.464	1.00	16.61
	atom	555	OE2	GLU	70	16.254	19.354	16.259	1.00	20.20
20	atom	556	C	GLU	70	20.275	21.840	13.950	1.00	14.28
	atom	557	O	GLU	70	20.964	22.612	14.629	1.00	11.43
	atom	558	N	MET	71	20.806	20.842	13.248	1.00	11.88
	atom	559	CA	MET	71	22.244	20.563	13.289	1.00	14.32
25	atom	560	CB	MET	71	22.584	19.235	12.588	1.00	14.16
	atom	561	CG	MET	71	22.224	17.968	13.368	1.00	9.37
	atom	562	SD	MET	71	22.245	16.550	12.260	1.00	15.49
	atom	563	CE	MET	71	23.964	16.104	12.333	1.00	8.73
	atom	564	C	MET	71	23.075	21.669	12.657	1.00	15.37
30	atom	565	O	MET	71	24.211	21.893	13.049	1.00	21.07
	atom	566	N	LYS	72	22.530	22.361	11.669	1.00	19.18
	atom	567	CA	LYS	72	23.305	23.431	11.037	1.00	22.11
	atom	568	CB	LYS	72	22.665	23.842	9.696	1.00	17.90
	atom	569	CG	LYS	72	22.668	22.698	8.663	1.00	24.56
35	atom	570	CD	LYS	72	22.275	23.141	7.254	1.00	20.71
	atom	571	CE	LYS	72	22.862	22.187	6.219	1.00	28.30
	atom	572	NZ	LYS	72	22.248	22.346	4.857	1.00	23.88

5	atom	573	C	LYS	72	23.380	24.619	12.001	1.00	22.65
	atom	574	O	LYS	72	24.397	25.302	12.108	1.00	21.19
	atom	575	N	ALA	73	22.302	24.835	12.739	1.00	19.95
	atom	576	CA	ALA	73	22.279	25.940	13.667	1.00	22.76
	atom	577	CB	ALA	73	20.881	26.080	14.257	1.00	17.61
	atom	578	C	ALA	73	23.327	25.765	14.770	1.00	25.80
	atom	579	O	ALA	73	23.894	26.740	15.250	1.00	27.1
10	atom	580	N	LYS	74	23.584	24.524	15.174	1.00	28.16
	atom	581	CA	LYS	74	24.567	24.286	16.216	1.00	25.53
	atom	582	CB	LYS	74	24.415	22.877	16.808	1.00	26.08
	atom	583	CG	LYS	74	23.611	22.800	18.116	1.00	29.43
	atom	584	CD	LYS	74	24.208	23.672	19.232	1.00	31.87
	atom	585	CE	LYS	74	24.525	22.850	20.490	1.00	36.37
	atom	586	NZ	LYS	74	23.999	23.451	21.763	1.00	37.56
15	atom	587	C	LYS	74	25.948	24.434	15.599	1.00	27.65
	atom	588	O	LYS	74	26.835	25.098	16.164	1.00	28.65
	atom	589	N	ALA	75	26.127	23.827	14.428	1.00	22.91
	atom	590	CA	ALA	75	27.414	23.873	13.754	1.00	20.17
	atom	591	CB	ALA	75	27.379	23.020	12.538	1.00	21.44
	atom	592	C	ALA	75	27.834	25.276	13.371	1.00	21.91
	atom	593	O	ALA	75	29.024	25.569	13.279	1.00	22.39
20	atom	594	N	SER	76	26.847	26.133	13.144	1.00	24.75
	atom	595	CA	SER	76	27.095	27.505	12.751	1.00	26.04
	atom	596	CB	SER	76	25.829	28.114	12.164	1.00	27.50
	atom	597	OG	SER	76	25.166	28.921	13.119	1.00	27.03
	atom	598	C	SER	76	27.534	28.277	13.975	1.00	29.40
	atom	599	O	SER	76	27.652	29.502	13.950	1.00	30.52
	atom	600	N	THR	77	27.796	27.534	15.041	1.00	29.85
30	atom	601	CA	THR	77	28.225	28.105	16.304	1.00	29.93
	atom	602	CB	THR	77	27.400	27.476	17.436	1.00	28.64
	atom	603	OG1	THR	77	26.580	28.490	18.021	1.00	28.24
	atom	604	CG2	THR	77	28.276	26.812	18.471	1.00	22.34
	atom	605	C	THR	77	29.718	27.836	16.486	1.00	29.10
	atom	606	O	THR	77	30.334	28.257	17.462	1.00	23.31
	atom	607	N	VAL	78	30.292	27.159	15.500	1.00	28.73
35	atom	608	CA	VAL	78	31.698	26.785	15.522	1.00	28.31

	atom	609	CB	VAL	78	31.869	25.319	15.059	1.00	22.98
	atom	610	CG1	VAL	78	33.326	24.954	14.999	1.00	24.21
	atom	611	CG2	VAL	78	31.130	24.389	16.008	1.00	27.29
	atom	612	C	VAL	78	32.623	27.664	14.682	1.00	30.31
5	atom	613	O	VAL	78	32.320	28.012	13.547	1.00	31.32
	atom	614	N	LYS	79	33.742	28.053	15.276	1.00	32.75
	atom	615	CA	LYS	79	34.746	28.820	14.567	1.00	34.72
	atom	616	CB	LYS	79	35.109	30.116	15.296	1.00	33.13
	atom	617	CG	LYS	79	36.261	30.890	14.628	1.00	35.72
10	atom	618	CD	LYS	79	36.018	32.411	14.590	1.00	35.69
	atom	619	CE	LYS	79	37.339	33.186	14.505	1.00	33.64
	atom	620	NZ	LYS	79	37.140	34.666	14.643	1.00	29.37
	atom	621	C	LYS	79	35.933	27.862	14.567	1.00	34.91
	atom	622	O	LYS	79	36.405	27.444	15.617	1.00	39.77
15	atom	623	N	ALA	80	36.367	27.466	13.383	1.00	32.01
	atom	624	CA	ALA	80	37.488	26.564	13.247	1.00	31.60
	atom	625	CB	ALA	80	37.036	25.260	12.609	1.00	33.03
	atom	626	C	ALA	80	38.512	27.270	12.370	1.00	31.62
	atom	627	O	ALA	80	38.201	28.228	11.672	1.00	30.86
20	atom	628	N	LYS	81	39.745	26.810	12.403	1.00	32.87
	atom	629	CA	LYS	81	40.744	27.473	11.605	1.00	39.04
	atom	630	CB	LYS	81	41.551	28.417	12.508	1.00	44.98
	atom	631	CG	LYS	81	40.696	29.521	13.164	1.00	48.22
	atom	632	CD	LYS	81	41.090	30.929	12.696	1.00	53.93
25	atom	633	CE	LYS	81	39.866	31.788	12.344	1.00	60.46
	atom	634	NZ	LYS	81	40.061	33.259	12.607	1.00	55.43
	atom	635	C	LYS	81	41.637	26.476	10.884	1.00	36.02
	atom	636	O	LYS	81	41.836	25.363	11.348	1.00	36.54
	atom	637	N	LEU	82	42.157	26.871	9.732	1.00	38.69
30	atom	638	CA	LEU	82	43.019	25.977	8.971	1.00	41.74
	atom	639	CB	LEU	82	43.277	26.530	7.571	1.00	38.50
	atom	640	CG	LEU	82	43.827	27.943	7.506	1.00	42.05
	atom	641	CD1	LEU	82	45.345	27.892	7.518	1.00	43.62
	atom	642	CD2	LEU	82	43.318	28.622	6.236	1.00	44.00
35	atom	643	C	LEU	82	44.320	25.815	9.713	1.00	40.84
	atom	644	O	LEU	82	44.833	26.772	10.275	1.00	45.86

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5	atom	645	N	LEU	83	44.846	24.600	9.725	1.00	42.05
	atom	646	CA	LEU	83	46.093	24.318	10.412	1.00	42.03
	atom	647	CB	LEU	83	46.077	22.891	10.955	1.00	45.18
	atom	648	CG	LEU	83	45.682	22.763	12.428	1.00	44.22
	atom	649	CD1	LEU	83	44.252	23.218	12.603	1.00	40.69
10	atom	650	CD2	LEU	83	45.866	21.324	12.894	1.00	48.10
	atom	651	C	LEU	83	47.296	24.492	9.503	1.00	42.56
	atom	652	O	LEU	83	47.434	23.788	8.500	1.00	45.28
	atom	653	N	SER	84	48.173	25.423	9.862	1.00	41.78
	atom	654	CA	SER	84	49.377	25.676	9.076	1.00	43.36
15	atom	655	CB	SER	84	50.366	26.533	9.858	1.00	41.89
	atom	656	OG	SER	84	51.163	25.696	10.675	1.00	46.93
	atom	657	C	SER	84	50.049	24.355	8.742	1.00	43.47
	atom	658	O	SER	84	49.926	23.387	9.487	1.00	45.37
	atom	659	N	VAL	85	50.757	24.329	7.615	1.00	42.65
20	atom	660	CA	VAL	85	51.465	23.139	7.159	1.00	40.02
	atom	661	CB	VAL	85	52.556	23.492	6.143	1.00	40.79
	atom	662	CG1	VAL	85	52.603	22.432	5.039	1.00	31.56
	atom	663	CG2	VAL	85	52.326	24.898	5.623	1.00	37.48
	atom	664	C	VAL	85	52.158	22.399	8.283	1.00	38.35
25	atom	665	O	VAL	85	51.895	21.223	8.515	1.00	35.15
	atom	666	N	GLU	86	53.068	23.105	8.945	1.00	41.71
	atom	667	CA	GLU	86	53.849	22.565	10.053	1.00	46.68
	atom	668	CB	GLU	86	54.530	23.718	10.804	1.00	49.13
	atom	669	CG	GLU	86	55.543	23.273	11.850	1.00	53.84
30	atom	670	CD	GLU	86	56.202	24.449	12.557	1.00	57.61
	atom	671	OE1	GLU	86	56.415	25.499	11.906	1.00	57.48
	atom	672	OE2	GLU	86	56.509	24.322	13.763	1.00	55.26
	atom	673	C	GLU	86	53.003	21.730	11.024	1.00	45.28
	atom	674	O	GLU	86	53.314	20.558	11.286	1.00	45.42
35	atom	675	N	GLU	87	51.938	22.336	11.550	1.00	41.57
	atom	676	CA	GLU	87	51.050	21.648	12.480	1.00	40.92
	atom	677	CB	GLU	87	49.897	22.558	12.911	1.00	43.41
	atom	678	CG	GLU	87	50.218	24.031	13.033	1.00	43.17
	atom	679	CD	GLU	87	49.103	24.781	13.736	1.00	48.23
	atom	680	OE1	GLU	87	48.904	24.535	14.947	1.00	51.88

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	atom	681	OE2	GLU	87	48.418	25.605	13.085	1.00	45.74
	atom	682	C	GLU	87	50.462	20.413	11.815	1.00	40.01
	atom	683	O	GLU	87	50.352	19.343	12.424	1.00	41.18
	atom	684	N	ALA	88	50.069	20.582	10.557	1.00	37.93
5	atom	685	CA	ALA	88	49.484	19.509	9.787	1.00	32.05
	atom	686	CB	ALA	88	49.147	20.011	8.399	1.00	38.95
	atom	687	C	ALA	88	50.455	18.345	9.719	1.00	30.85
	atom	688	O	ALA	88	50.087	17.202	10.001	1.00	30.25
	atom	689	N	CYS	89	51.700	18.637	9.353	1.00	33.20
10	atom	690	CA	CYS	89	52.734	17.598	9.253	1.00	35.92
	atom	691	CB	CYS	89	54.068	18.195	8.781	1.00	37.45
	atom	692	SG	CYS	89	54.037	19.133	7.232	1.00	39.47
	atom	693	C	CYS	89	52.935	16.940	10.618	1.00	34.78
	atom	694	O	CYS	89	53.176	15.735	10.710	1.00	28.20
15	atom	695	N	LYS	90	52.832	17.752	11.670	1.00	36.61
	atom	696	CA	LYS	90	52.989	17.281	13.042	1.00	35.73
	atom	697	CB	LYS	90	52.757	18.446	14.004	1.00	40.25
	atom	698	CG	LYS	90	53.894	19.470	14.056	1.00	39.78
	atom	699	CD	LYS	90	53.742	20.377	15.285	1.00	40.47
20	atom	700	CE	LYS	90	53.888	21.857	14.931	1.00	40.65
	atom	701	NZ	LYS	90	54.520	22.655	16.026	1.00	37.75
	atom	702	C	LYS	90	52.009	16.141	13.349	1.00	34.09
	atom	703	O	LYS	90	52.411	15.076	13.823	1.00	33.58
	atom	704	N	LEU	91	50.727	16.361	13.067	1.00	30.64
25	atom	705	CA	LEU	91	49.706	15.336	13.317	1.00	31.32
	atom	706	CB	LEU	91	48.299	15.909	13.041	1.00	29.65
	atom	707	CG	LEU	91	47.937	17.261	13.661	1.00	29.77
	atom	708	CD1	LEU	91	46.491	17.609	13.371	1.00	27.02
	atom	709	CD2	LEU	91	48.149	17.208	15.150	1.00	28.96
30	atom	710	C	LEU	91	49.894	14.045	12.495	1.00	29.18
	atom	711	O	LEU	91	49.156	13.060	12.669	1.00	24.10
	atom	712	N	THR	92	50.889	14.031	11.616	1.00	28.58
	atom	713	CA	THR	92	51.079	12.858	10.777	1.00	28.44
	atom	714	CB	THR	92	51.677	13.241	9.420	1.00	28.48
35	atom	715	OG1	THR	92	50.954	14.357	8.884	1.00	22.03
	atom	716	CG2	THR	92	51.604	12.057	8.458	1.00	18.87

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	atom	717	C	THR	92	51.904	11.743	11.397	1.00	30.83
	atom	718	O	THR	92	53.055	11.937	11.790	1.00	27.27
	atom	719	N	PRO	93	51.315	10.541	11.470	1.00	30.23
	atom	720	CD	PRO	93	49.962	10.222	10.983	1.00	26.81
5	atom	721	CA	PRO	93	51.984	9.382	12.047	1.00	31.46
	atom	722	CB	PRO	93	50.877	8.338	12.157	1.00	27.95
	atom	723	CG	PRO	93	49.875	8.737	11.148	1.00	27.44
	atom	724	C	PRO	93	53.137	8.920	11.195	1.00	38.55
	atom	725	O	PRO	93	53.051	8.926	9.968	1.00	42.88
10	atom	726	N	PRO	94	54.247	8.526	11.839	1.00	44.22
	atom	727	CD	PRO	94	54.416	8.532	13.302	1.00	42.29
	atom	728	CA	PRO	94	55.455	8.046	11.158	1.00	45.63
	atom	729	CB	PRO	94	56.553	8.167	12.220	1.00	44.07
	atom	730	CG	PRO	94	55.882	8.755	13.454	1.00	41.67
15	atom	731	C	PRO	94	55.256	6.610	10.710	1.00	50.09
	atom	732	O	PRO	94	56.194	5.814	10.691	1.00	54.82
	atom	733	N	HIS	95	54.017	6.286	10.364	1.00	53.67
	atom	734	CA	HIS	95	53.654	4.946	9.913	1.00	57.80
	atom	735	CB	HIS	95	52.855	4.220	11.006	1.00	63.80
20	atom	736	CG	HIS	95	53.629	3.970	12.260	1.00	69.07
	atom	737	CD2	HIS	95	53.856	4.756	13.340	1.00	72.38
	atom	738	ND1	HIS	95	54.292	2.785	12.501	1.00	71.73
	atom	739	CE1	HIS	95	54.895	2.851	13.675	1.00	73.76
	atom	740	NE2	HIS	95	54.647	4.036	14.205	1.00	75.05
25	atom	741	C	HIS	95	52.799	5.030	8.645	1.00	55.40
	atom	742	O	HIS	95	52.527	4.016	7.999	1.00	55.81
	atom	743	N	SER	96	52.372	6.244	8.305	1.00	53.91
	atom	744	CA	SER	96	51.531	6.472	7.133	1.00	52.92
	atom	745	CB	SER	96	51.193	7.963	7.003	1.00	50.23
30	atom	746	OG	SER	96	49.841	8.210	7.345	1.00	52.35
	atom	747	C	SER	96	52.163	5.979	5.835	1.00	51.06
	atom	748	O	SER	96	53.388	5.939	5.698	1.00	49.44
	atom	749	N	ALA	97	51.307	5.593	4.890	1.00	49.46
	atom	750	CA	ALA	97	51.756	5.121	3.591	1.00	45.65
35	atom	751	CB	ALA	97	50.561	4.674	2.764	1.00	44.44
	atom	752	C	ALA	97	52.468	6.294	2.925	1.00	42.76

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	atom	753	O	ALA	97	51.954	7.416	2.924	1.00	40.92
	atom	754	N	LYS	98	53.649	6.043	2.370	1.00	41.52
	atom	755	CA	LYS	98	54.407	7.113	1.740	1.00	42.05
	atom	756	CB	LYS	98	55.803	6.637	1.325	1.00	45.33
5	atom	757	CG	LYS	98	55.893	5.176	0.910	1.00	52.15
	atom	758	CD	LYS	98	57.225	4.882	0.200	1.00	55.56
	atom	759	CE	LYS	98	57.951	3.666	0.803	1.00	60.84
	atom	760	NZ	LYS	98	59.091	4.017	1.720	1.00	57.80
	atom	761	C	LYS	98	53.682	7.669	0.540	1.00	40.45
10	atom	762	O	LYS	98	52.762	7.048	0.009	1.00	38.78
	atom	763	N	SER	99	54.094	8.860	0.131	1.00	39.53
	atom	764	CA	SER	99	53.502	9.535	-1.019	1.00	38.92
	atom	765	CB	SER	99	53.896	11.017	-1.007	1.00	37.52
	atom	766	OG	SER	99	53.532	11.664	-2.210	1.00	39.62
15	atom	767	C	SER	99	54.015	8.874	-2.290	1.00	38.92
	atom	768	O	SER	99	55.129	8.339	-2.320	1.00	37.85
	atom	769	N	LYS	100	53.199	8.895	-3.335	1.00	38.61
	atom	770	CA	LYS	100	53.610	8.314	-4.603	1.00	38.93
	atom	771	CB	LYS	100	52.384	7.997	-5.472	1.00	39.20
20	atom	772	CG	LYS	100	51.381	7.066	-4.797	1.00	41.56
	atom	773	CD	LYS	100	50.672	6.138	-5.782	1.00	42.55
	atom	774	CE	LYS	100	49.883	6.929	-6.824	1.00	46.92
	atom	775	NZ	LYS	100	48.395	6.748	-6.711	1.00	45.76
	atom	776	C	LYS	100	54.470	9.372	-5.272	1.00	36.95
25	atom	777	O	LYS	100	54.808	9.277	-6.444	1.00	41.42
	atom	778	N	PHE	101	54.825	10.388	-4.503	1.00	36.94
	atom	779	CA	PHE	101	55.625	11.482	-5.018	1.00	36.82
	atom	780	CB	PHE	101	54.877	12.805	-4.833	1.00	38.05
	atom	781	CG	PHE	101	53.559	12.877	-5.566	1.00	41.28
30	atom	782	CD1	PHE	101	52.392	12.400	-4.977	1.00	43.57
	atom	783	CD2	PHE	101	53.480	13.455	-6.827	1.00	44.60
	atom	784	CE1	PHE	101	51.164	12.499	-5.630	1.00	41.45
	atom	785	CE2	PHE	101	52.254	13.560	-7.489	1.00	46.72
	atom	786	CZ	PHE	101	51.095	13.079	-6.883	1.00	43.73
35	atom	787	C	PHE	101	57.015	11.600	-4.397	1.00	35.89
	atom	788	O	PHE	101	57.520	12.708	-4.234	1.00	36.78

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5	atom	789	N	GLY	102	57.625	10.479	-4.029	1.00	32.70
	atom	790	CA	GLY	102	58.973	10.550	-3.491	1.00	37.31
	atom	791	C	GLY	102	59.210	10.698	-1.998	1.00	40.11
	atom	792	O	GLY	102	60.090	10.035	-1.452	1.00	43.81
	atom	793	N	TYR	103	58.446	11.559	-1.334	1.00	39.26
	atom	794	CA	TYR	103	58.609	11.784	0.096	1.00	35.00
	atom	795	CB	TYR	103	58.399	13.270	0.409	1.00	38.56
	atom	796	CG	TYR	103	56.984	13.746	0.170	1.00	43.82
10	atom	797	CD1	TYR	103	56.087	13.896	1.231	1.00	44.08
	atom	798	CE1	TYR	103	54.774	14.281	1.009	1.00	39.21
	atom	799	CD2	TYR	103	56.522	14.003	-1.123	1.00	41.55
	atom	800	CE2	TYR	103	55.208	14.389	-1.350	1.00	38.72
	atom	801	CZ	TYR	103	54.343	14.518	-0.281	1.00	39.56
15	atom	802	OH	TYR	103	53.031	14.835	-0.515	1.00	37.93
	atom	803	C	TYR	103	57.665	10.942	0.951	1.00	32.59
	atom	804	O	TYR	103	56.492	10.797	0.632	1.00	29.69
	atom	805	N	GLY	104	58.191	10.408	2.052	1.00	32.00
	atom	806	CA	GLY	104	57.394	9.589	2.952	1.00	25.84
20	atom	807	C	GLY	104	56.983	10.318	4.223	1.00	25.38
	atom	808	O	GLY	104	57.114	11.548	4.312	1.00	24.18
	atom	809	N	ALA	105	56.508	9.550	5.209	1.00	24.20
	atom	810	CA	ALA	105	56.037	10.080	6.494	1.00	23.76
	atom	811	CB	ALA	105	55.611	8.922	7.407	1.00	26.92
25	atom	812	C	ALA	105	57.011	10.984	7.234	1.00	24.90
	atom	813	O	ALA	105	56.660	12.095	7.592	1.00	25.76
	atom	814	N	LYS	106	58.233	10.516	7.461	1.00	30.07
	atom	815	CA	LYS	106	59.236	11.306	8.177	1.00	33.58
	atom	816	CB	LYS	106	60.552	10.538	8.272	1.00	35.25
30	atom	817	CG	LYS	106	60.434	9.081	8.660	1.00	37.37
	atom	818	CD	LYS	106	61.755	8.348	8.415	1.00	39.21
	atom	819	CE	LYS	106	62.944	9.043	9.098	1.00	42.05
	atom	820	NZ	LYS	106	63.712	9.962	8.187	1.00	45.24
	atom	821	C	LYS	106	59.510	12.683	7.554	1.00	38.58
35	atom	822	O	LYS	106	59.422	13.715	8.236	1.00	41.15
	atom	823	N	ASP	107	59.853	12.704	6.268	1.00	38.63
	atom	824	CA	ASP	107	60.118	13.969	5.594	1.00	38.65

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5	atom	825	CB	ASP	107	60.298	13.752	4.096	1.00	40.04
	atom	826	CG	ASP	107	61.279	12.671	3.798	1.00	40.25
	atom	827	OD1	ASP	107	60.843	11.515	3.609	1.00	44.96
	atom	828	OD2	ASP	107	62.486	12.982	3.772	1.00	40.23
	atom	829	C	ASP	107	58.950	14.903	5.832	1.00	38.71
	atom	830	O	ASP	107	59.133	16.118	5.913	1.00	40.03
	atom	831	N	VAL	108	57.754	14.323	5.938	1.00	38.49
	atom	832	CA	VAL	108	56.544	15.093	6.190	1.00	39.25
10	atom	833	CB	VAL	108	55.254	14.240	6.177	1.00	38.78
	atom	834	CG1	VAL	108	54.088	15.088	6.680	1.00	36.21
	atom	835	CG2	VAL	108	54.968	13.715	4.776	1.00	38.69
	atom	836	C	VAL	108	56.639	15.698	7.570	1.00	40.88
15	atom	837	O	VAL	108	56.140	16.798	7.798	1.00	42.42
	atom	838	N	ARG	109	57.259	14.982	8.501	1.00	39.54
	atom	839	CA	ARG	109	57.375	15.533	9.839	1.00	44.71
	atom	840	CB	ARG	109	57.485	14.429	10.897	1.00	44.04
	atom	841	CG	ARG	109	57.175	14.978	12.297	1.00	46.40
	atom	842	CD	ARG	109	57.340	13.959	13.411	1.00	46.18
	atom	843	NE	ARG	109	56.074	13.345	13.797	1.00	40.34
	atom	844	CZ	ARG	109	55.647	12.189	13.307	1.00	43.34
20	atom	845	NH1	ARG	109	56.390	11.536	12.418	1.00	44.24
	atom	846	NH2	ARG	109	54.488	11.682	13.701	1.00	39.95
	atom	847	C	ARG	109	58.557	16.492	9.979	1.00	44.27
	atom	848	O	ARG	109	58.488	17.464	10.733	1.00	45.55
25	atom	849	N	ASN	110	59.628	16.237	9.235	1.00	42.68
	atom	850	CA	ASN	110	60.813	17.080	9.318	1.00	41.58
	atom	851	CB	ASN	110	62.028	16.327	8.776	1.00	42.25
	atom	852	CG	ASN	110	62.223	14.976	9.444	1.00	43.61
	atom	853	OD1	ASN	110	61.431	14.562	10.297	1.00	43.54
30	atom	854	ND2	ASN	110	63.282	14.277	9.055	1.00	49.56
	atom	855	C	ASN	110	60.675	18.411	8.594	1.00	40.58
	atom	856	O	ASN	110	61.528	19.289	8.737	1.00	40.24
	atom	857	N	LEU	111	59.600	18.560	7.828	1.00	39.98
35	atom	858	CA	LEU	111	59.350	19.787	7.061	1.00	40.96
	atom	859	CB	LEU	111	59.470	21.027	7.981	1.00	43.73
	atom	860	CG	LEU	111	58.245	21.493	8.806	1.00	44.77

5	atom	861	CD1	LEU	111	58.270	23.014	8.942	1.00	43.32
	atom	862	CD2	LEU	111	56.932	21.055	8.136	1.00	43.76
	atom	863	C	LEU	111	60.313	19.903	5.861	1.00	36.53
	atom	864	O	LEU	111	60.836	20.974	5.581	1.00	33.61
	atom	865	N	SER	112	60.521	18.784	5.161	1.00	37.08
	atom	866	CA	SER	112	61.408	18.702	3.993	1.00	37.95
	atom	867	CB	SER	112	61.636	17.239	3.620	1.00	35.33
	atom	868	OG	SER	112	61.881	16.443	4.772	1.00	40.02
	atom	869	C	SER	112	60.896	19.451	2.758	1.00	42.04
10	atom	870	O	SER	112	59.685	19.503	2.507	1.00	43.96
	atom	871	N	SER	113	61.821	20.017	1.979	1.00	42.58
	atom	872	CA	SER	113	61.442	20.762	0.777	1.00	42.22
	atom	873	CB	SER	113	62.692	21.302	0.038	1.00	39.75
15	atom	874	OG	SER	113	63.534	20.272	-0.463	1.00	37.28
	atom	875	C	SER	113	60.580	19.920	-0.174	1.00	41.06
	atom	876	O	SER	113	59.622	20.429	-0.761	1.00	36.23
	atom	877	N	LYS	114	60.899	18.636	-0.320	1.00	37.37
	atom	878	CA	LYS	114	60.102	17.811	-1.219	1.00	37.95
20	atom	879	CB	LYS	114	60.759	16.434	-1.449	1.00	39.06
	atom	880	CG	LYS	114	61.015	15.611	-0.194	1.00	43.80
	atom	881	CD	LYS	114	62.256	14.721	-0.361	1.00	44.68
	atom	882	CE	LYS	114	61.916	13.233	-0.326	1.00	45.40
	atom	883	NZ	LYS	114	61.253	12.772	-1.592	1.00	45.38
25	atom	884	C	LYS	114	58.708	17.650	-0.630	1.00	33.14
	atom	885	O	LYS	114	57.705	17.668	-1.348	1.00	29.12
	atom	886	N	ALA	115	58.645	17.515	0.688	1.00	30.70
	atom	887	CA	ALA	115	57.363	17.346	1.351	1.00	27.33
	atom	888	CB	ALA	115	57.576	16.838	2.757	1.00	29.72
30	atom	889	C	ALA	115	56.540	18.623	1.370	1.00	25.15
	atom	890	O	ALA	115	55.506	18.710	0.720	1.00	25.23
	atom	891	N	VAL	116	56.997	19.633	2.091	1.00	25.45
	atom	892	CA	VAL	116	56.208	20.850	2.160	1.00	29.58
	atom	893	CB	VAL	116	56.807	21.875	3.170	1.00	31.94
35	atom	894	CG1	VAL	116	57.757	21.178	4.135	1.00	30.62
	atom	895	CG2	VAL	116	57.486	23.011	2.432	1.00	32.05
	atom	896	C	VAL	116	55.982	21.526	0.814	1.00	30.56

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	atom	897	O	VAL	116	55.136	22.424	0.691	1.00	31.18
	atom	898	N	ASN	117	56.741	21.107	-0.197	1.00	34.10
	atom	899	CA	ASN	117	56.585	21.673	-1.534	1.00	28.81
	atom	900	CB	ASN	117	57.845	21.486	-2.352	1.00	30.56
5	atom	901	CG	ASN	117	58.738	22.691	-2.281	1.00	34.70
	atom	902	OD1	ASN	117	58.260	23.812	-2.089	1.00	33.31
	atom	903	ND2	ASN	117	60.044	22.477	-2.421	1.00	34.40
	atom	904	C	ASN	117	55.416	20.997	-2.214	1.00	30.73
	atom	905	O	ASN	117	54.545	21.674	-2.774	1.00	32.39
10	atom	906	N	HIS	118	55.383	19.665	-2.168	1.00	28.42
	atom	907	CA	HIS	118	54.260	18.959	-2.757	1.00	29.70
	atom	908	CB	HIS	118	54.415	17.447	-2.645	1.00	30.32
	atom	909	CG	HIS	118	53.374	16.692	-3.412	1.00	33.54
	atom	910	CD2	HIS	118	53.242	16.450	-4.740	1.00	35.37
15	atom	911	ND1	HIS	118	52.283	16.106	-2.809	1.00	36.29
	atom	912	CE1	HIS	118	51.524	15.536	-3.729	1.00	34.25
	atom	913	NE2	HIS	118	52.083	15.732	-4.910	1.00	34.76
	atom	914	C	HIS	118	52.985	19.387	-2.032	1.00	29.99
	atom	915	O	HIS	118	51.999	19.755	-2.677	1.00	29.65
20	atom	916	N	ILE	119	53.007	19.358	-0.696	1.00	27.46
	atom	917	CA	ILE	119	51.830	19.758	0.078	1.00	24.42
	atom	918	CB	ILE	119	52.118	19.945	1.620	1.00	24.65
	atom	919	CG2	ILE	119	50.793	20.085	2.361	1.00	20.54
	atom	920	CG1	ILE	119	52.950	18.796	2.211	1.00	17.58
25	atom	921	CD1	ILE	119	52.759	17.472	1.551	1.00	15.70
	atom	922	C	ILE	119	51.294	21.100	-0.437	1.00	25.51
	atom	923	O	ILE	119	50.091	21.243	-0.673	1.00	29.09
	atom	924	N	HIS	120	52.178	22.079	-0.617	1.00	23.27
	atom	925	CA	HIS	120	51.754	23.406	-1.080	1.00	28.30
30	atom	926	CB	HIS	120	52.927	24.401	-1.069	1.00	30.07
	atom	927	CG	HIS	120	53.039	25.200	0.197	1.00	33.49
	atom	928	CD2	HIS	120	52.237	26.162	0.719	1.00	35.05
	atom	929	ND1	HIS	120	54.108	25.086	1.063	1.00	30.46
	atom	930	CE1	HIS	120	53.961	25.944	2.057	1.00	34.16
35	atom	931	NE2	HIS	120	52.834	26.610	1.872	1.00	30.63
	atom	932	C	HIS	120	51.190	23.321	-2.483	1.00	27.89

5	atom	933	O	HIS	120	50.467	24.209	-2.934	1.00	28.53
	atom	934	N	SER	121	51.524	22.236	-3.163	1.00	27.55
	atom	935	CA	SER	121	51.071	22.030	-4.517	1.00	28.43
	atom	936	CB	SER	121	52.001	21.055	-5.219	1.00	29.05
	atom	937	OG	SER	121	51.649	19.736	-4.876	1.00	39.03
	atom	938	C	SER	121	49.642	21.512	-4.531	1.00	29.23
	atom	939	O	SER	121	48.781	22.064	-5.234	1.00	27.10
	atom	940	N	VAL	122	49.397	20.448	-3.765	1.00	24.86
10	atom	941	CA	VAL	122	48.061	19.871	-3.671	1.00	19.27
	atom	942	CB	VAL	122	47.981	18.827	-2.557	1.00	18.10
	atom	943	CG1	VAL	122	46.710	18.056	-2.670	1.00	19.73
	atom	944	CG2	VAL	122	49.175	17.901	-2.612	1.00	14.09
	atom	945	C	VAL	122	47.122	21.014	-3.306	1.00	24.73
15	atom	946	O	VAL	122	46.080	21.214	-3.937	1.00	29.01
	atom	947	N	TRP	123	47.518	21.778	-2.294	1.00	24.11
	atom	948	CA	TRP	123	46.736	22.905	-1.817	1.00	23.68
	atom	949	CB	TRP	123	47.474	23.584	-0.658	1.00	21.51
20	atom	950	CG	TRP	123	46.631	24.562	0.083	1.00	24.63
	atom	951	CD2	TRP	123	45.661	24.270	1.100	1.00	24.83
	atom	952	CE2	TRP	123	45.100	25.507	1.512	1.00	26.60
	atom	953	CE3	TRP	123	45.205	23.086	1.703	1.00	21.62
	atom	954	CD1	TRP	123	46.620	25.922	-0.076	1.00	25.58
	atom	955	NE1	TRP	123	45.705	26.497	0.779	1.00	26.32
	atom	956	CZ2	TRP	123	44.103	25.589	2.505	1.00	23.81
25	atom	957	CZ3	TRP	123	44.208	23.173	2.697	1.00	17.40
	atom	958	CH2	TRP	123	43.674	24.411	3.080	1.00	19.50
	atom	959	C	TRP	123	46.437	23.932	-2.908	1.00	27.15
30	atom	960	O	TRP	123	45.278	24.340	-3.116	1.00	26.13
	atom	961	N	LYS	124	47.489	24.368	-3.592	1.00	27.03
	atom	962	CA	LYS	124	47.331	25.343	-4.652	1.00	27.60
	atom	963	CB	LYS	124	48.684	25.610	-5.310	1.00	33.72
	atom	964	CG	LYS	124	49.053	27.077	-5.428	1.00	40.99
	atom	965	CD	LYS	124	49.540	27.423	-6.833	1.00	41.84
	atom	966	CE	LYS	124	48.672	28.500	-7.485	1.00	47.34
35	atom	967	NZ	LYS	124	47.546	28.970	-6.607	1.00	50.55
	atom	968	C	LYS	124	46.347	24.749	-5.669	1.00	30.14

5	atom	969	O	LYS	124	45.470	25.442	-6.194	1.00	32.78
	atom	970	N	ASP	125	46.490	23.454	-5.928	1.00	24.17
	atom	971	CA	ASP	125	45.624	22.772	-6.865	1.00	26.07
	atom	972	CB	ASP	125	46.210	21.410	-7.197	1.00	28.24
	atom	973	CG	ASP	125	45.393	20.679	-8.211	1.00	30.03
	atom	974	OD1	ASP	125	44.765	19.662	-7.849	1.00	31.48
	atom	975	OD2	ASP	125	45.375	21.131	-9.373	1.00	34.25
	atom	976	C	ASP	125	44.198	22.602	-6.332	1.00	27.25
10	atom	977	O	ASP	125	43.231	22.810	-7.057	1.00	23.54
	atom	978	N	LEU	126	44.078	22.214	-5.061	1.00	29.03
	atom	979	CA	LEU	126	42.777	22.032	-4.417	1.00	26.92
	atom	980	CB	LEU	126	42.953	21.695	-2.932	1.00	31.95
15	atom	981	CG	LEU	126	42.677	20.298	-2.347	1.00	31.46
	atom	982	CD1	LEU	126	42.691	19.259	-3.428	1.00	31.01
	atom	983	CD2	LEU	126	43.732	19.964	-1.291	1.00	27.21
	atom	984	C	LEU	126	42.000	23.325	-4.544	1.00	28.21
	atom	985	O	LEU	126	40.787	23.314	-4.721	1.00	31.19
	atom	986	N	LEU	127	42.695	24.453	-4.450	1.00	32.51
20	atom	987	CA	LEU	127	42.021	25.749	-4.582	1.00	33.82
	atom	988	CB	LEU	127	42.862	26.874	-3.959	1.00	33.73
	atom	989	CG	LEU	127	42.570	27.333	-2.520	1.00	32.63
	atom	990	CD1	LEU	127	43.875	27.614	-1.812	1.00	32.67
25	atom	991	CD2	LEU	127	41.709	28.582	-2.521	1.00	32.52
	atom	992	C	LEU	127	41.747	26.071	-6.051	1.00	34.67
	atom	993	O	LEU	127	40.684	26.581	-6.389	1.00	35.01
	atom	994	N	GLU	128	42.697	25.750	-6.925	1.00	37.52
	atom	995	CA	GLU	128	42.554	26.037	-8.357	1.00	42.22
	atom	996	CB	GLU	128	43.903	25.864	-9.064	1.00	44.81
30	atom	997	CG	GLU	128	44.962	26.886	-8.659	1.00	48.63
	atom	998	CD	GLU	128	46.323	26.622	-9.300	1.00	49.49
	atom	999	OE1	GLU	128	46.840	25.485	-9.203	1.00	41.93
	atom	1000	OE2	GLU	128	46.878	27.566	-9.904	1.00	55.45
35	atom	1001	C	GLU	128	41.507	25.192	-9.090	1.00	43.41
	atom	1002	O	GLU	128	40.710	25.717	-9.882	1.00	43.52
	atom	1003	N	ASP	129	41.517	23.886	-8.829	1.00	41.66
	atom	1004	CA	ASP	129	40.594	22.958	-9.477	1.00	40.83

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5	atom	1005	CB	ASP	129	41.415	21.847	-10.155	1.00	36.59
	atom	1006	CG	ASP	129	40.556	20.706	-10.689	1.00	37.69
	atom	1007	OD1	ASP	129	41.134	19.702	-11.161	1.00	33.70
	atom	1008	OD2	ASP	129	39.315	20.808	-10.635	1.00	33.52
	atom	1009	C	ASP	129	39.590	22.371	-8.475	1.00	42.15
	atom	1010	O	ASP	129	39.976	21.865	-7.417	1.00	46.87
	atom	1011	N	THR	130	38.304	22.433	-8.811	1.00	37.86
	atom	1012	CA	THR	130	37.261	21.914	-7.930	1.00	34.06
10	atom	1013	CB	THR	130	36.360	23.037	-7.449	1.00	33.25
	atom	1014	OG1	THR	130	37.053	24.282	-7.581	1.00	40.23
	atom	1015	CG2	THR	130	35.996	22.816	-5.998	1.00	40.96
	atom	1016	C	THR	130	36.367	20.840	-8.543	1.00	28.72
	atom	1017	O	THR	130	35.238	20.625	-8.092	1.00	26.45
	atom	1018	N	VAL	131	36.869	20.158	-9.560	1.00	24.00
15	atom	1019	CA	VAL	131	36.084	19.127	-10.212	1.00	22.33
	atom	1020	CB	VAL	131	35.417	19.654	-11.529	1.00	22.42
	atom	1021	CG1	VAL	131	34.437	20.761	-11.221	1.00	16.48
	atom	1022	CG2	VAL	131	36.482	20.152	-12.502	1.00	20.73
20	atom	1023	C	VAL	131	36.869	17.876	-10.575	1.00	23.48
	atom	1024	O	VAL	131	36.292	16.799	-10.689	1.00	29.07
	atom	1025	N	THR	132	38.174	17.981	-10.748	1.00	21.43
	atom	1026	CA	THR	132	38.876	16.783	-11.167	1.00	26.51
	atom	1027	CB	THR	132	40.326	17.069	-11.656	1.00	28.03
	atom	1028	OG1	THR	132	40.295	18.039	-12.706	1.00	29.16
25	atom	1029	CG2	THR	132	40.979	15.776	-12.191	1.00	20.81
	atom	1030	C	THR	132	38.944	15.695	-10.121	1.00	25.49
	atom	1031	O	THR	132	39.544	15.864	-9.075	1.00	21.33
	atom	1032	N	PRO	133	38.324	14.547	-10.401	1.00	24.92
30	atom	1033	CD	PRO	133	37.538	14.190	-11.591	1.00	24.51
	atom	1034	CA	PRO	133	38.373	13.459	-9.424	1.00	24.23
	atom	1035	CB	PRO	133	37.913	12.255	-10.222	1.00	20.97
	atom	1036	CG	PRO	133	36.987	12.831	-11.232	1.00	23.00
	atom	1037	C	PRO	133	39.803	13.290	-8.921	1.00	23.05
	atom	1038	O	PRO	133	40.754	13.507	-9.666	1.00	18.59
35	atom	1039	N	ILE	134	39.971	12.950	-7.647	1.00	21.63
	atom	1040	CA	ILE	134	41.324	12.746	-7.172	1.00	18.39

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5	atom	1041	CB	ILE	134	41.639	13.507	-5.916	1.00	16.31
	atom	1042	CG2	ILE	134	43.124	13.434	-5.668	1.00	19.82
	atom	1043	CG1	ILE	134	41.243	14.972	-6.097	1.00	19.78
	atom	1044	CD1	ILE	134	41.493	15.852	-4.891	1.00	25.49
	atom	1045	C	ILE	134	41.535	11.287	-6.945	1.00	18.04
	atom	1046	O	ILE	134	40.664	10.588	-6.434	1.00	20.16
	atom	1047	N	ASP	135	42.700	10.814	-7.361	1.00	20.29
	atom	1048	CA	ASP	135	43.002	9.406	-7.226	1.00	18.18
10	atom	1049	CB	ASP	135	44.367	9.106	-7.848	1.00	14.84
	atom	1050	CG	ASP	135	44.607	7.619	-8.020	1.00	20.47
	atom	1051	OD1	ASP	135	45.680	7.130	-7.608	1.00	22.89
	atom	1052	OD2	ASP	135	43.718	6.931	-8.567	1.00	22.60
15	atom	1053	C	ASP	135	42.981	8.934	-5.768	1.00	19.45
	atom	1054	O	ASP	135	43.234	9.704	-4.825	1.00	12.97
	atom	1055	N	THR	136	42.650	7.663	-5.604	1.00	17.34
	atom	1056	CA	THR	136	42.660	7.030	-4.304	1.00	18.09
	atom	1057	CB	THR	136	41.245	6.860	-3.722	1.00	15.30
	atom	1058	OG1	THR	136	40.495	5.971	-4.551	1.00	8.12
20	atom	1059	CG2	THR	136	40.532	8.200	-3.614	1.00	14.26
	atom	1060	C	THR	136	43.253	5.644	-4.580	1.00	23.39
	atom	1061	O	THR	136	43.281	5.183	-5.731	1.00	21.41
	atom	1062	N	THR	137	43.752	4.995	-3.533	1.00	21.68
25	atom	1063	CA	THR	137	44.305	3.665	-3.669	1.00	21.26
	atom	1064	CB	THR	137	45.685	3.564	-3.016	1.00	26.31
	atom	1065	OG1	THR	137	46.610	4.402	-3.726	1.00	28.90
	atom	1066	CG2	THR	137	46.163	2.103	-3.014	1.00	16.36
	atom	1067	C	THR	137	43.340	2.775	-2.922	1.00	24.37
	atom	1068	O	THR	137	42.654	3.238	-2.014	1.00	28.21
30	atom	1069	N	ILE	138	43.268	1.507	-3.289	1.00	24.64
	atom	1070	CA	ILE	138	42.360	0.601	-2.603	1.00	25.62
	atom	1071	CB	ILE	138	41.184	0.248	-3.527	1.00	25.74
	atom	1072	CG2	ILE	138	41.709	-0.457	-4.785	1.00	30.99
35	atom	1073	CG1	ILE	138	40.196	-0.663	-2.806	1.00	24.67
	atom	1074	CD1	ILE	138	39.051	-1.123	-3.679	1.00	17.63
	atom	1075	C	ILE	138	43.112	-0.675	-2.211	1.00	28.00
	atom	1076	O	ILE	138	43.899	-1.196	-2.997	1.00	28.97

5	atom	1077	N	MET	139	42.881	-1.174	-0.998	1.00	30.48
	atom	1078	CA	MET	139	43.550	-2.398	-0.537	1.00	26.65
	atom	1079	CB	MET	139	44.801	-2.089	0.293	1.00	27.97
	atom	1080	CG	MET	139	45.626	-0.917	-0.152	1.00	29.19
	atom	1081	SD	MET	139	47.011	-1.427	-1.169	1.00	34.62
	atom	1082	CE	MET	139	47.603	-2.919	-0.310	1.00	32.02
	atom	1083	C	MET	139	42.668	-3.273	0.328	1.00	26.27
	atom	1084	O	MET	139	41.647	-2.834	0.852	1.00	26.36
10	atom	1085	N	ALA	140	43.094	-4.520	0.480	1.00	26.30
	atom	1086	CA	ALA	140	42.408	-5.484	1.319	1.00	29.53
	atom	1087	CB	ALA	140	42.590	-6.870	0.763	1.00	34.69
	atom	1088	C	ALA	140	43.087	-5.374	2.677	1.00	33.12
	atom	1089	O	ALA	140	44.294	-5.593	2.779	1.00	34.39
15	atom	1090	N	LYS	141	42.331	-5.018	3.716	1.00	35.05
	atom	1091	CA	LYS	141	42.923	-4.883	5.045	1.00	32.82
	atom	1092	CB	LYS	141	41.940	-4.202	6.011	1.00	34.61
	atom	1093	CG	LYS	141	42.343	-2.775	6.410	1.00	36.26
20	atom	1094	CD	LYS	141	41.601	-2.310	7.678	1.00	46.84
	atom	1095	CE	LYS	141	41.236	-0.805	7.655	1.00	47.24
	atom	1096	NZ	LYS	141	42.184	0.072	8.439	1.00	40.93
	atom	1097	C	LYS	141	43.345	-6.242	5.589	1.00	29.67
	atom	1098	O	LYS	141	42.719	-7.260	5.303	1.00	29.80
	atom	1099	N	ASN	142	44.425	-6.256	6.360	1.00	31.23
25	atom	1100	CA	ASN	142	44.923	-7.496	6.949	1.00	30.24
	atom	1101	CB	ASN	142	46.396	-7.706	6.591	1.00	33.52
	atom	1102	CG	ASN	142	46.609	-8.065	5.126	1.00	34.71
	atom	1103	OD1	ASN	142	47.347	-8.991	4.817	1.00	38.81
30	atom	1104	ND2	ASN	142	45.977	-7.330	4.225	1.00	37.08
	atom	1105	C	ASN	142	44.796	-7.412	8.470	1.00	29.20
	atom	1106	O	ASN	142	45.648	-6.803	9.126	1.00	29.53
	atom	1107	N	GLU	143	43.734	-7.990	9.031	1.00	23.30
	atom	1108	CA	GLU	143	43.556	-7.979	10.483	1.00	21.14
	atom	1109	CB	GLU	143	42.520	-6.945	10.924	1.00	17.55
35	atom	1110	CG	GLU	143	41.199	-7.006	10.249	1.00	17.18
	atom	1111	CD	GLU	143	40.522	-5.652	10.216	1.00	23.57
	atom	1112	OE1	GLU	143	41.225	-4.620	10.318	1.00	27.69

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5	atom	1113	OE2	GLU	143	39.284	-5.607	10.087	1.00	30.88
	atom	1114	C	GLU	143	43.142	-9.368	10.890	1.00	17.20
	atom	1115	O	GLU	143	42.574	-10.093	10.097	1.00	18.93
	atom	1116	N	VAL	144	43.418	-9.760	12.121	1.00	17.94
	atom	1117	CA	VAL	144	43.092	-11.126	12.486	1.00	20.65
	atom	1118	CB	VAL	144	44.297	-11.807	13.201	1.00	20.49
	atom	1119	CG1	VAL	144	45.518	-10.910	13.115	1.00	16.50
	atom	1120	CG2	VAL	144	43.962	-12.141	14.635	1.00	18.24
10	atom	1121	C	VAL	144	41.812	-11.342	13.263	1.00	20.00
	atom	1122	O	VAL	144	41.355	-10.476	13.985	1.00	24.75
	atom	1123	N	PHE	145	41.250	-12.528	13.078	1.00	19.07
	atom	1124	CA	PHE	145	40.002	-12.946	13.694	1.00	16.80
15	atom	1125	CB	PHE	145	38.850	-12.777	12.687	1.00	12.26
	atom	1126	CG	PHE	145	38.573	-11.358	12.318	1.00	15.43
	atom	1127	CD1	PHE	145	38.838	-10.891	11.022	1.00	16.74
	atom	1128	CD2	PHE	145	38.076	-10.470	13.261	1.00	12.81
	atom	1129	CE1	PHE	145	38.614	-9.551	10.673	1.00	10.56
	atom	1130	CE2	PHE	145	37.848	-9.117	12.924	1.00	14.36
	atom	1131	CZ	PHE	145	38.120	-8.662	11.624	1.00	12.18
	atom	1132	C	PHE	145	40.091	-14.421	14.082	1.00	16.98
20	atom	1133	O	PHE	145	41.146	-15.058	13.975	1.00	19.51
	atom	1134	N	CYS	146	38.960	-14.959	14.513	1.00	15.55
	atom	1135	CA	CYS	146	38.861	-16.353	14.886	1.00	19.61
	atom	1136	CB	CYS	146	38.352	-16.479	16.325	1.00	20.46
25	atom	1137	SG	CYS	146	38.349	-18.152	16.978	1.00	29.33
	atom	1138	C	CYS	146	37.826	-16.887	13.918	1.00	22.54
	atom	1139	O	CYS	146	36.852	-16.197	13.631	1.00	24.05
	atom	1140	N	VAL	147	38.025	-18.096	13.408	1.00	27.04
30	atom	1141	CA	VAL	147	37.070	-18.648	12.462	1.00	38.78
	atom	1142	CB	VAL	147	37.428	-20.088	12.078	1.00	40.45
	atom	1143	CG1	VAL	147	38.929	-20.190	11.844	1.00	37.73
	atom	1144	CG2	VAL	147	36.962	-21.050	13.167	1.00	40.03
35	atom	1145	C	VAL	147	35.668	-18.609	13.046	1.00	42.25
	atom	1146	O	VAL	147	35.485	-18.844	14.239	1.00	43.36
	atom	1147	N	GLN	148	34.695	-18.293	12.192	1.00	52.45
	atom	1148	CA	GLN	148	33.294	-18.181	12.585	1.00	58.94

5	atom	1149	CB	GLN	148	32.375	-18.223	11.360	1.00	62.76
	atom	1150	CG	GLN	148	31.141	-17.310	11.473	1.00	69.47
	atom	1151	CD	GLN	148	30.518	-16.967	10.120	1.00	72.76
	atom	1152	OE1	GLN	148	30.620	-15.834	9.644	1.00	72.30
	atom	1153	NE2	GLN	148	29.866	-17.949	9.499	1.00	73.42
	atom	1154	C	GLN	148	32.922	-19.294	13.537	1.00	61.80
	atom	1155	O	GLN	148	33.311	-20.447	13.338	1.00	61.76
	atom	1156	N	PRO	149	32.157	-18.956	14.591	1.00	63.58
10	atom	1157	CD	PRO	149	31.641	-17.602	14.865	1.00	63.75
	atom	1158	CA	PRO	149	31.717	-19.920	15.606	1.00	64.07
	atom	1159	CB	PRO	149	30.373	-19.359	16.072	1.00	64.66
	atom	1160	CG	PRO	149	30.410	-17.863	15.711	1.00	65.09
15	atom	1161	C	PRO	149	31.577	-21.294	14.983	1.00	64.02
	atom	1162	O	PRO	149	32.248	-22.251	15.381	1.00	60.51
	atom	1163	N	GLU	150	30.702	-21.356	13.983	1.00	64.24
	atom	1164	CA	GLU	150	30.440	-22.576	13.243	1.00	65.65
	atom	1165	CB	GLU	150	29.245	-22.375	12.308	1.00	64.12
	atom	1166	CG	GLU	150	28.904	-20.909	12.036	1.00	65.02
20	atom	1167	CD	GLU	150	27.507	-20.534	12.510	1.00	65.10
	atom	1168	OE1	GLU	150	26.913	-21.330	13.273	1.00	61.66
	atom	1169	OE2	GLU	150	27.007	-19.449	12.123	1.00	62.67
	atom	1170	C	GLU	150	31.688	-22.911	12.430	1.00	67.55
	atom	1171	O	GLU	150	32.228	-22.046	11.726	1.00	68.49
25	atom	1172	N	LYS	151	32.146	-24.159	12.543	1.00	66.38
	atom	1173	CA	LYS	151	33.328	-24.620	11.818	1.00	63.34
	atom	1174	CB	LYS	151	33.522	-26.135	12.006	1.00	62.68
	atom	1175	CG	LYS	151	34.936	-26.532	12.446	1.00	61.87
	atom	1176	CD	LYS	151	35.330	-27.903	11.918	1.00	62.09
30	atom	1177	CE	LYS	151	36.406	-27.813	10.847	1.00	59.59
	atom	1178	NZ	LYS	151	36.715	-29.162	10.279	1.00	57.99
	atom	1179	C	LYS	151	33.213	-24.282	10.330	1.00	60.40
	atom	1180	O	LYS	151	32.533	-24.966	9.559	1.00	59.04
	atom	1181	N	GLY	152	33.889	-23.208	9.943	1.00	57.56
35	atom	1182	CA	GLY	152	33.862	-22.772	8.565	1.00	51.32
	atom	1183	C	GLY	152	33.977	-21.269	8.492	1.00	45.79
	atom	1184	O	GLY	152	35.070	-20.725	8.638	1.00	45.11

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	atom	1185	N	GLY	153	32.841	-20.611	8.280	1.00	42.64
	atom	1186	CA	GLY	153	32.798	-19.163	8.173	1.00	40.81
	atom	1187	C	GLY	153	34.094	-18.404	8.402	1.00	38.58
	atom	1188	O	GLY	153	34.712	-18.507	9.461	1.00	38.72
5	atom	1189	N	ARG	154	34.499	-17.632	7.399	1.00	35.69
	atom	1190	CA	ARG	154	35.709	-16.820	7.472	1.00	33.89
	atom	1191	CB	ARG	154	36.839	-17.486	6.677	1.00	37.54
	atom	1192	CG	ARG	154	38.090	-17.857	7.489	1.00	34.13
	atom	1193	CD	ARG	154	39.211	-18.305	6.554	1.00	32.60
10	atom	1194	NE	ARG	154	40.342	-18.930	7.236	1.00	28.80
	atom	1195	CZ	ARG	154	40.262	-20.030	7.974	1.00	28.75
	atom	1196	NH1	ARG	154	39.091	-20.644	8.138	1.00	25.45
	atom	1197	NH2	ARG	154	41.365	-20.523	8.532	1.00	22.79
	atom	1198	C	ARG	154	35.349	-15.472	6.853	1.00	32.85
15	atom	1199	O	ARG	154	34.777	-15.417	5.765	1.00	36.37
	atom	1200	N	LYS	155	35.666	-14.386	7.539	1.00	27.50
	atom	1201	CA	LYS	155	35.334	-13.073	7.026	1.00	28.54
	atom	1202	CB	LYS	155	35.253	-12.071	8.178	1.00	31.26
	atom	1203	CG	LYS	155	33.956	-12.101	8.960	1.00	40.17
20	atom	1204	CD	LYS	155	34.057	-12.968	10.230	1.00	43.63
	atom	1205	CE	LYS	155	33.901	-12.123	11.498	1.00	43.66
	atom	1206	NZ	LYS	155	34.164	-10.671	11.242	1.00	44.91
	atom	1207	C	LYS	155	36.328	-12.560	5.984	1.00	32.85
	atom	1208	O	LYS	155	37.554	-12.615	6.177	1.00	33.24
25	atom	1209	N	PRO	156	35.816	-12.093	4.839	1.00	29.41
	atom	1210	CD	PRO	156	34.400	-12.109	4.434	1.00	31.41
	atom	1211	CA	PRO	156	36.694	-11.569	3.794	1.00	26.76
	atom	1212	CB	PRO	156	35.775	-11.421	2.582	1.00	32.64
	atom	1213	CG	PRO	156	34.395	-11.332	3.151	1.00	33.94
30	atom	1214	C	PRO	156	37.264	-10.228	4.222	1.00	21.47
	atom	1215	O	PRO	156	36.611	-9.493	4.941	1.00	15.73
	atom	1216	N	ALA	157	38.465	-9.908	3.752	1.00	19.11
	atom	1217	CA	ALA	157	39.114	-8.658	4.095	1.00	23.05
	atom	1218	CB	ALA	157	40.338	-8.452	3.232	1.00	20.61
35	atom	1219	C	ALA	157	38.213	-7.442	3.988	1.00	27.93
	atom	1220	O	ALA	157	37.155	-7.481	3.380	1.00	31.73

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5	atom	1221	N	ARG	158	38.661	-6.359	4.608	1.00	31.17
	atom	1222	CA	ARG	158	37.966	-5.090	4.596	1.00	30.61
	atom	1223	CB	ARG	158	38.108	-4.402	5.953	1.00	39.25
	atom	1224	CG	ARG	158	36.921	-4.522	6.895	1.00	46.67
	atom	1225	CD	ARG	158	36.243	-3.165	7.074	1.00	56.19
10	atom	1226	NE	ARG	158	36.734	-2.328	8.184	1.00	62.03
	atom	1227	CZ	ARG	158	37.968	-2.314	8.699	1.00	65.03
	atom	1228	NH1	ARG	158	38.921	-3.111	8.238	1.00	62.19
	atom	1229	NH2	ARG	158	38.252	-1.462	9.683	1.00	66.14
	atom	1230	C	ARG	158	38.729	-4.291	3.555	1.00	30.37
15	atom	1231	O	ARG	158	39.953	-4.405	3.468	1.00	30.08
	atom	1232	N	LEU	159	38.033	-3.478	2.771	1.00	28.48
	atom	1233	CA	LEU	159	38.720	-2.704	1.758	1.00	26.77
	atom	1234	CB	LEU	159	37.950	-2.748	0.440	1.00	25.42
	atom	1235	CG	LEU	159	37.459	-4.091	-0.085	1.00	28.81
20	atom	1236	CD1	LEU	159	37.558	-4.057	-1.589	1.00	26.63
	atom	1237	CD2	LEU	159	38.260	-5.249	0.496	1.00	25.80
	atom	1238	C	LEU	159	38.895	-1.259	2.160	1.00	25.74
	atom	1239	O	LEU	159	37.904	-0.526	2.245	1.00	28.64
	atom	1240	N	ILE	160	40.132	-0.839	2.419	1.00	22.24
25	atom	1241	CA	ILE	160	40.351	0.559	2.759	1.00	19.95
	atom	1242	CB	ILE	160	41.538	0.755	3.759	1.00	24.51
	atom	1243	CG2	ILE	160	42.848	0.394	3.120	1.00	24.22
	atom	1244	CG1	ILE	160	41.594	2.222	4.228	1.00	33.48
	atom	1245	CD1	ILE	160	41.084	2.491	5.672	1.00	30.14
30	atom	1246	C	ILE	160	40.566	1.354	1.465	1.00	20.39
	atom	1247	O	ILE	160	40.938	0.813	0.417	1.00	23.89
	atom	1248	N	VAL	161	40.270	2.640	1.530	1.00	20.34
	atom	1249	CA	VAL	161	40.392	3.513	0.384	1.00	13.51
	atom	1250	CB	VAL	161	39.002	3.776	-0.226	1.00	17.37
35	atom	1251	CG1	VAL	161	39.122	4.782	-1.383	1.00	15.61
	atom	1252	CG2	VAL	161	38.377	2.453	-0.686	1.00	11.77
	atom	1253	C	VAL	161	40.958	4.821	0.903	1.00	16.32
	atom	1254	O	VAL	161	40.330	5.469	1.725	1.00	13.98
	atom	1255	N	PHE	162	42.135	5.215	0.432	1.00	18.09
	atom	1256	CA	PHE	162	42.738	6.456	0.913	1.00	19.73

	atom	1257	CB	PHE	162	43.746	6.135	2.000	1.00	19.06
	atom	1258	CG	PHE	162	44.793	5.155	1.569	1.00	23.11
	atom	1259	CD1	PHE	162	46.062	5.595	1.188	1.00	24.58
	atom	1260	CD2	PHE	162	44.524	3.792	1.557	1.00	19.16
5	atom	1261	CE1	PHE	162	47.036	4.691	0.813	1.00	19.74
	atom	1262	CE2	PHE	162	45.498	2.878	1.182	1.00	18.01
	atom	1263	CZ	PHE	162	46.759	3.330	0.810	1.00	18.62
	atom	1264	C	PHE	162	43.450	7.247	-0.177	1.00	18.75
	atom	1265	O	PHE	162	44.021	6.665	-1.092	1.00	13.27
10	atom	1266	N	PRO	163	43.438	8.591	-0.072	1.00	19.79
	atom	1267	CD	PRO	163	42.825	9.385	1.011	1.00	20.08
	atom	1268	CA	PRO	163	44.099	9.451	-1.062	1.00	18.01
	atom	1269	CB	PRO	163	43.549	10.845	-0.754	1.00	14.92
	atom	1270	CG	PRO	163	43.317	10.820	0.718	1.00	13.92
15	atom	1271	C	PRO	163	45.617	9.368	-0.851	1.00	22.20
	atom	1272	O	PRO	163	46.119	8.424	-0.228	1.00	24.81
	atom	1273	N	ASP	164	46.344	10.352	-1.364	1.00	22.65
	atom	1274	CA	ASP	164	47.798	10.363	-1.231	1.00	22.44
	atom	1275	CB	ASP	164	48.437	10.919	-2.528	1.00	21.02
20	atom	1276	CG	ASP	164	49.979	10.885	-2.515	1.00	25.45
	atom	1277	OD1	ASP	164	50.596	11.960	-2.340	1.00	26.87
	atom	1278	OD2	ASP	164	50.578	9.796	-2.698	1.00	23.16
	atom	1279	C	ASP	164	48.189	11.214	-0.020	1.00	21.82
	atom	1280	O	ASP	164	47.461	12.134	0.369	1.00	11.22
25	atom	1281	N	LEU	165	49.339	10.878	0.561	1.00	23.17
	atom	1282	CA	LEU	165	49.901	11.567	1.714	1.00	24.29
	atom	1283	CB	LEU	165	51.404	11.245	1.797	1.00	27.89
	atom	1284	CG	LEU	165	52.245	11.796	2.960	1.00	27.55
	atom	1285	CD1	LEU	165	51.470	11.627	4.263	1.00	29.58
30	atom	1286	CD2	LEU	165	53.579	11.080	3.035	1.00	23.53
	atom	1287	C	LEU	165	49.700	13.085	1.641	1.00	27.92
	atom	1288	O	LEU	165	49.280	13.739	2.618	1.00	26.93
	atom	1289	N	GLY	166	50.015	13.650	0.484	1.00	25.18
	atom	1290	CA	GLY	166	49.863	15.083	0.324	1.00	24.97
35	atom	1291	C	GLY	166	48.428	15.546	0.471	1.00	22.31
	atom	1292	O	GLY	166	48.161	16.659	0.938	1.00	23.62

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5	atom	1293	N	VAL	167	47.495	14.710	0.043	1.00	18.72
	atom	1294	CA	VAL	167	46.099	15.076	0.183	1.00	22.92
	atom	1295	CB	VAL	167	45.155	14.096	-0.579	1.00	23.81
	atom	1296	CG1	VAL	167	43.712	14.344	-0.172	1.00	17.63
	atom	1297	CG2	VAL	167	45.303	14.306	-2.082	1.00	17.07
	atom	1298	C	VAL	167	45.834	15.030	1.679	1.00	20.19
	atom	1299	O	VAL	167	45.316	15.988	2.251	1.00	25.41
	atom	1300	N	ARG	168	46.226	13.926	2.306	1.00	17.47
10	atom	1301	CA	ARG	168	46.071	13.747	3.748	1.00	20.66
	atom	1302	CB	ARG	168	46.768	12.442	4.184	1.00	12.74
	atom	1303	CG	ARG	168	45.786	11.303	4.520	1.00	14.91
	atom	1304	CD	ARG	168	46.288	9.924	4.153	1.00	5.34
15	atom	1305	NE	ARG	168	47.737	9.836	4.279	1.00	20.08
	atom	1306	CZ	ARG	168	48.510	8.981	3.616	1.00	19.67
	atom	1307	NH1	ARG	168	49.826	8.993	3.812	1.00	21.17
	atom	1308	NH2	ARG	168	47.974	8.112	2.771	1.00	12.86
	atom	1309	C	ARG	168	46.599	14.957	4.564	1.00	21.32
	atom	1310	O	ARG	168	45.901	15.482	5.429	1.00	25.92
	atom	1311	N	VAL	169	47.814	15.417	4.297	1.00	20.48
	atom	1312	CA	VAL	169	48.307	16.562	5.048	1.00	20.77
20	atom	1313	CB	VAL	169	49.737	17.006	4.587	1.00	17.98
	atom	1314	CG1	VAL	169	50.085	18.381	5.158	1.00	16.60
	atom	1315	CG2	VAL	169	50.753	15.998	5.043	1.00	18.11
	atom	1316	C	VAL	169	47.335	17.708	4.813	1.00	21.18
25	atom	1317	O	VAL	169	47.006	18.459	5.732	1.00	24.32
	atom	1318	N	CYS	170	46.865	17.843	3.578	1.00	25.10
	atom	1319	CA	CYS	170	45.930	18.919	3.249	1.00	24.67
	atom	1320	CB	CYS	170	45.744	19.002	1.730	1.00	27.71
30	atom	1321	SG	CYS	170	47.076	19.909	0.869	1.00	27.54
	atom	1322	C	CYS	170	44.584	18.731	3.955	1.00	22.25
	atom	1323	O	CYS	170	43.966	19.705	4.416	1.00	21.66
	atom	1324	N	GLU	171	44.137	17.481	4.057	1.00	18.43
35	atom	1325	CA	GLU	171	42.875	17.216	4.736	1.00	18.04
	atom	1326	CB	GLU	171	42.587	15.699	4.835	1.00	8.34
	atom	1327	CG	GLU	171	42.052	15.108	3.509	1.00	2.27
	atom	1328	CD	GLU	171	41.409	13.717	3.626	1.00	8.05

5	atom	1329	OE1	GLU	171	42.129	12.702	3.652	1.00	5.15
	atom	1330	OE2	GLU	171	40.166	13.633	3.672	1.00	9.40
	atom	1331	C	GLU	171	43.049	17.836	6.106	1.00	19.14
	atom	1332	O	GLU	171	42.212	18.637	6.532	1.00	14.20
	atom	1333	N	LYS	172	44.170	17.514	6.764	1.00	18.46
	atom	1334	CA	LYS	172	44.446	18.034	8.107	1.00	16.81
	atom	1335	CB	LYS	172	45.820	17.586	8.604	1.00	18.96
	atom	1336	CG	LYS	172	45.843	16.234	9.300	1.00	17.24
10	atom	1337	CD	LYS	172	46.653	15.237	8.517	1.00	17.70
	atom	1338	CE	LYS	172	47.112	14.111	9.391	1.00	20.07
	atom	1339	NZ	LYS	172	46.802	12.772	8.798	1.00	21.38
	atom	1340	C	LYS	172	44.391	19.550	8.146	1.00	17.84
15	atom	1341	O	LYS	172	43.719	20.131	8.989	1.00	19.49
	atom	1342	N	MET	173	45.094	20.200	7.236	1.00	18.73
	atom	1343	CA	MET	173	45.092	21.649	7.252	1.00	25.13
	atom	1344	CB	MET	173	45.825	22.200	6.025	1.00	24.15
20	atom	1345	CG	MET	173	47.353	22.055	6.141	1.00	32.87
	atom	1346	SD	MET	173	48.276	22.321	4.610	1.00	32.61
	atom	1347	CE	MET	173	48.568	24.104	4.677	1.00	29.59
	atom	1348	C	MET	173	43.682	22.218	7.330	1.00	26.29
25	atom	1349	O	MET	173	43.358	22.984	8.239	1.00	25.83
	atom	1350	N	ALA	174	42.826	21.814	6.404	1.00	25.93
	atom	1351	CA	ALA	174	41.475	22.348	6.378	1.00	22.87
	atom	1352	CB	ALA	174	41.007	22.419	4.946	1.00	28.71
30	atom	1353	C	ALA	174	40.400	21.648	7.208	1.00	23.81
	atom	1354	O	ALA	174	39.341	22.212	7.426	1.00	28.91
	atom	1355	N	LEU	175	40.637	20.447	7.699	1.00	20.65
	atom	1356	CA	LEU	175	39.548	19.799	8.398	1.00	20.65
35	atom	1357	CB	LEU	175	39.014	18.672	7.509	1.00	16.61
	atom	1358	CG	LEU	175	38.022	19.194	6.474	1.00	18.52
	atom	1359	CD1	LEU	175	37.617	18.080	5.514	1.00	25.09
	atom	1360	CD2	LEU	175	36.826	19.748	7.185	1.00	12.35
40	atom	1361	C	LEU	175	39.764	19.279	9.809	1.00	21.36
	atom	1362	O	LEU	175	38.785	19.044	10.536	1.00	21.56
	atom	1363	N	TYR	176	41.024	19.106	10.199	1.00	21.79
	atom	1364	CA	TYR	176	41.330	18.590	11.521	1.00	24.37

5	atom	1365	CB	TYR	176	42.823	18.702	11.801	1.00	27.38
	atom	1366	CG	TYR	176	43.200	18.138	13.149	1.00	26.58
	atom	1367	CD1	TYR	176	43.467	16.780	13.304	1.00	18.36
	atom	1368	CE1	TYR	176	43.778	16.245	14.541	1.00	15.60
	atom	1369	CD2	TYR	176	43.255	18.959	14.276	1.00	22.63
	atom	1370	CE2	TYR	176	43.563	18.438	15.520	1.00	22.17
	atom	1371	CZ	TYR	176	43.825	17.081	15.652	1.00	21.88
	atom	1372	OH	TYR	176	44.135	16.572	16.897	1.00	24.09
10	atom	1373	C	TYR	176	40.544	19.281	12.639	1.00	23.42
	atom	1374	O	TYR	176	39.834	18.617	13.401	1.00	24.86
	atom	1375	N	ASP	177	40.667	20.602	12.725	1.00	19.86
	atom	1376	CA	ASP	177	39.973	21.381	13.751	1.00	24.18
	atom	1377	CB	ASP	177	40.235	22.895	13.584	1.00	24.04
15	atom	1378	CG	ASP	177	39.836	23.720	14.830	1.00	28.43
	atom	1379	OD1	ASP	177	39.646	24.954	14.698	1.00	25.72
	atom	1380	OD2	ASP	177	39.723	23.142	15.940	1.00	30.12
	atom	1381	C	ASP	177	38.480	21.121	13.689	1.00	23.39
	atom	1382	O	ASP	177	37.858	20.791	14.701	1.00	18.65
20	atom	1383	N	VAL	178	37.925	21.278	12.490	1.00	26.00
	atom	1384	CA	VAL	178	36.503	21.068	12.241	1.00	22.90
	atom	1385	CB	VAL	178	36.187	21.206	10.734	1.00	24.09
	atom	1386	CG1	VAL	178	34.742	20.761	10.447	1.00	21.97
	atom	1387	CG2	VAL	178	36.420	22.642	10.287	1.00	18.09
25	atom	1388	C	VAL	178	36.090	19.673	12.666	1.00	22.07
	atom	1389	O	VAL	178	35.087	19.485	13.325	1.00	22.18
	atom	1390	N	VAL	179	36.896	18.699	12.278	1.00	21.01
	atom	1391	CA	VAL	179	36.624	17.296	12.538	1.00	19.30
	atom	1392	CB	VAL	179	37.459	16.452	11.506	1.00	17.27
30	atom	1393	CG1	VAL	179	37.942	15.161	12.075	1.00	15.59
	atom	1394	CG2	VAL	179	36.626	16.198	10.280	1.00	5.32
	atom	1395	C	VAL	179	36.830	16.836	13.993	1.00	23.09
	atom	1396	O	VAL	179	36.416	15.729	14.372	1.00	24.82
	atom	1397	N	SER	180	37.438	17.676	14.821	1.00	20.55
35	atom	1398	CA	SER	180	37.638	17.306	16.217	1.00	19.50
	atom	1399	CB	SER	180	39.123	17.268	16.562	1.00	17.45
	atom	1400	OG	SER	180	39.768	18.460	16.176	1.00	18.00

	atom	1401	C	SER	180	36.939	18.278	17.147	1.00	22.13
	atom	1402	O	SER	180	37.040	18.166	18.366	1.00	23.67
	atom	1403	N	THR	181	36.211	19.225	16.570	1.00	22.08
	atom	1404	CA	THR	181	35.522	20.224	17.361	1.00	24.72
5	atom	1405	CB	THR	181	36.063	21.648	17.058	1.00	29.04
	atom	1406	OG1	THR	181	37.417	21.764	17.521	1.00	31.21
	atom	1407	CG2	THR	181	35.222	22.697	17.754	1.00	34.02
	atom	1408	C	THR	181	34.024	20.230	17.141	1.00	23.96
	atom	1409	O	THR	181	33.257	20.222	18.101	1.00	25.10
10	atom	1410	N	LEU	182	33.614	20.211	15.878	1.00	22.24
	atom	1411	CA	LEU	182	32.194	20.278	15.517	1.00	20.03
	atom	1412	CB	LEU	182	32.080	20.533	14.006	1.00	16.49
	atom	1413	CG	LEU	182	30.764	20.247	13.288	1.00	13.61
	atom	1414	CD1	LEU	182	30.473	21.285	12.231	1.00	10.62
15	atom	1415	CD2	LEU	182	30.871	18.883	12.672	1.00	18.21
	atom	1416	C	LEU	182	31.239	19.156	15.932	1.00	18.70
	atom	1417	O	LEU	182	30.076	19.411	16.246	1.00	17.38
	atom	1418	N	PRO	183	31.705	17.902	15.949	1.00	24.20
	atom	1419	CD	PRO	183	33.041	17.389	15.603	1.00	21.52
20	atom	1420	CA	PRO	183	30.778	16.824	16.345	1.00	25.01
	atom	1421	CB	PRO	183	31.625	15.555	16.259	1.00	24.26
	atom	1422	CG	PRO	183	32.766	15.923	15.337	1.00	27.42
	atom	1423	C	PRO	183	30.150	16.988	17.727	1.00	27.49
	atom	1424	O	PRO	183	28.938	16.860	17.890	1.00	25.95
25	atom	1425	N	GLN	184	30.975	17.274	18.722	1.00	28.58
	atom	1426	CA	GLN	184	30.464	17.428	20.075	1.00	29.48
	atom	1427	CB	GLN	184	31.605	17.736	21.046	1.00	32.11
	atom	1428	CG	GLN	184	31.533	16.935	22.326	1.00	43.59
	atom	1429	CD	GLN	184	32.132	17.669	23.513	1.00	52.97
30	atom	1430	OE1	GLN	184	33.004	17.143	24.207	1.00	54.15
	atom	1431	NE2	GLN	184	31.668	18.893	23.750	1.00	56.44
	atom	1432	C	GLN	184	29.413	18.517	20.162	1.00	26.07
	atom	1433	O	GLN	184	28.370	18.341	20.794	1.00	26.07
	atom	1434	N	VAL	185	29.682	19.643	19.517	1.00	22.55
35	atom	1435	CA	VAL	185	28.755	20.756	19.561	1.00	17.75
	atom	1436	CB	VAL	185	29.354	22.045	18.958	1.00	14.40

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5	atom	1437	CG1	VAL	185	28.388	23.213	19.202	1.00	9.26
	atom	1438	CG2	VAL	185	30.709	22.336	19.568	1.00	2.00
	atom	1439	C	VAL	185	27.466	20.447	18.828	1.00	19.34
	atom	1440	O	VAL	185	26.400	20.866	19.260	1.00	25.62
	atom	1441	N	VAL	186	27.548	19.715	17.730	1.00	15.24
	atom	1442	CA	VAL	186	26.333	19.398	16.993	1.00	14.51
	atom	1443	CB	VAL	186	26.635	18.907	15.525	1.00	16.42
	atom	1444	CG1	VAL	186	25.339	18.383	14.877	1.00	4.47
10	atom	1445	CG2	VAL	186	27.261	20.044	14.680	1.00	8.35
	atom	1446	C	VAL	186	25.513	18.309	17.680	1.00	15.94
	atom	1447	O	VAL	186	24.304	18.431	17.851	1.00	17.63
	atom	1448	N	MET	187	26.176	17.238	18.087	1.00	18.70
15	atom	1449	CA	MET	187	25.467	16.117	18.674	1.00	17.25
	atom	1450	CB	MET	187	26.079	14.814	18.119	1.00	18.33
	atom	1451	CG	MET	187	25.890	14.700	16.581	1.00	13.46
	atom	1452	SD	MET	187	26.973	13.526	15.676	1.00	20.52
	atom	1453	CE	MET	187	26.373	12.004	16.291	1.00	20.96
	atom	1454	C	MET	187	25.333	16.074	20.191	1.00	17.46
	atom	1455	O	MET	187	24.592	15.251	20.718	1.00	20.33
	atom	1456	N	GLY	188	26.029	16.956	20.895	1.00	17.70
20	atom	1457	CA	GLY	188	25.928	16.966	22.347	1.00	18.64
	atom	1458	C	GLY	188	26.339	15.677	23.049	1.00	19.86
	atom	1459	O	GLY	188	27.277	14.994	22.613	1.00	18.30
	atom	1460	N	SER	189	25.624	15.327	24.118	1.00	13.87
25	atom	1461	CA	SER	189	25.952	14.128	24.893	1.00	17.42
	atom	1462	CB	SER	189	25.061	13.992	26.145	1.00	12.03
	atom	1463	OG	SER	189	23.696	14.207	25.843	1.00	18.25
	atom	1464	C	SER	189	25.862	12.863	24.089	1.00	16.25
30	atom	1465	O	SER	189	26.330	11.825	24.524	1.00	15.99
	atom	1466	N	SER	190	25.252	12.957	22.911	1.00	17.69
	atom	1467	CA	SER	190	25.117	11.812	22.026	1.00	13.15
	atom	1468	CB	SER	190	24.036	12.104	20.984	1.00	14.83
35	atom	1469	OG	SER	190	22.736	11.995	21.536	1.00	17.43
	atom	1470	C	SER	190	26.445	11.462	21.310	1.00	15.44
	atom	1471	O	SER	190	26.555	10.387	20.703	1.00	19.87
	atom	1472	N	TYR	191	27.441	12.349	21.365	1.00	7.89

	atom	1473	CA	TYR	191	28.720	12.080	20.699	1.00	11.45
	atom	1474	CB	TYR	191	29.500	13.371	20.479	1.00	4.60
	atom	1475	CG	TYR	191	30.682	13.211	19.570	1.00	8.04
	atom	1476	CD1	TYR	191	30.591	12.470	18.392	1.00	17.37
5	atom	1477	CE1	TYR	191	31.698	12.339	17.525	1.00	15.08
	atom	1478	CD2	TYR	191	31.905	13.815	19.868	1.00	11.56
	atom	1479	CE2	TYR	191	33.006	13.693	19.016	1.00	10.55
	atom	1480	CZ	TYR	191	32.899	12.960	17.846	1.00	17.72
	atom	1481	OH	TYR	191	33.980	12.878	16.993	1.00	17.02
10	atom	1482	C	TYR	191	29.614	11.086	21.438	1.00	13.99
	atom	1483	O	TYR	191	30.417	11.468	22.281	1.00	15.45
	atom	1484	N	GLY	192	29.486	9.810	21.091	1.00	16.18
	atom	1485	CA	GLY	192	30.271	8.772	21.728	1.00	11.25
	atom	1486	C	GLY	192	31.754	9.007	21.985	1.00	16.97
15	atom	1487	O	GLY	192	32.189	8.813	23.105	1.00	18.14
	atom	1488	N	PHE	193	32.538	9.431	20.990	1.00	17.05
	atom	1489	CA	PHE	193	33.985	9.596	21.202	1.00	15.36
	atom	1490	CB	PHE	193	34.702	9.845	19.863	1.00	9.63
	atom	1491	CG	PHE	193	34.471	8.749	18.841	1.00	12.30
20	atom	1492	CD1	PHE	193	33.799	9.024	17.636	1.00	9.68
	atom	1493	CD2	PHE	193	34.826	7.423	19.129	1.00	6.80
	atom	1494	CE1	PHE	193	33.472	7.995	16.736	1.00	6.25
	atom	1495	CE2	PHE	193	34.510	6.377	18.248	1.00	12.36
	atom	1496	CZ	PHE	193	33.827	6.655	17.045	1.00	6.66
25	atom	1497	C	PHE	193	34.438	10.622	22.245	1.00	16.34
	atom	1498	O	PHE	193	35.632	10.764	22.508	1.00	17.70
	atom	1499	N	GLN	194	33.505	11.338	22.844	1.00	13.56
	atom	1500	CA	GLN	194	33.881	12.299	23.871	1.00	15.20
	atom	1501	CB	GLN	194	32.825	13.400	23.988	1.00	12.23
30	atom	1502	CG	GLN	194	31.573	12.947	24.708	1.00	6.84
	atom	1503	CD	GLN	194	30.473	13.965	24.645	1.00	8.12
	atom	1504	OE1	GLN	194	30.645	15.117	25.055	1.00	15.59
	atom	1505	NE2	GLN	194	29.331	13.555	24.129	1.00	8.58
	atom	1506	C	GLN	194	33.973	11.547	25.209	1.00	18.89
35	atom	1507	O	GLN	194	34.481	12.086	26.203	1.00	15.22
	atom	1508	N	TYR	195	33.492	10.298	25.210	1.00	14.89

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	atom	1509	CA	TYR	195	33.467	9.479	26.407	1.00	11.78
	atom	1510	CB	TYR	195	32.137	8.731	26.484	1.00	10.12
	atom	1511	CG	TYR	195	30.923	9.639	26.603	1.00	7.64
	atom	1512	CD1	TYR	195	29.791	9.409	25.835	1.00	6.64
5	atom	1513	CE1	TYR	195	28.684	10.240	25.913	1.00	9.04
	atom	1514	CD2	TYR	195	30.914	10.744	27.475	1.00	10.79
	atom	1515	CE2	TYR	195	29.802	11.587	27.562	1.00	3.29
	atom	1516	CZ	TYR	195	28.691	11.324	26.774	1.00	8.40
	atom	1517	OH	TYR	195	27.584	12.144	26.797	1.00	10.79
10	atom	1518	C	TYR	195	34.603	8.494	26.562	1.00	15.50
	atom	1519	O	TYR	195	35.006	7.854	25.600	1.00	17.27
	atom	1520	N	SER	196	35.139	8.395	27.778	1.00	17.84
	atom	1521	CA	SER	196	36.213	7.441	28.071	1.00	17.44
	atom	1522	CB	SER	196	36.937	7.792	29.383	1.00	22.27
15	atom	1523	OG	SER	196	36.088	7.619	30.511	1.00	24.61
	atom	1524	C	SER	196	35.376	6.196	28.266	1.00	17.04
	atom	1525	O	SER	196	34.159	6.304	28.424	1.00	19.71
	atom	1526	N	PRO	197	35.980	5.003	28.222	1.00	15.92
	atom	1527	CD	PRO	197	37.379	4.613	27.980	1.00	13.27
20	atom	1528	CA	PRO	197	35.072	3.861	28.422	1.00	18.00
	atom	1529	CB	PRO	197	35.987	2.627	28.421	1.00	14.58
	atom	1530	CG	PRO	197	37.391	3.129	28.250	1.00	12.92
	atom	1531	C	PRO	197	34.245	3.988	29.707	1.00	21.73
	atom	1532	O	PRO	197	33.088	3.557	29.760	1.00	24.27
25	atom	1533	N	GLY	198	34.829	4.609	30.732	1.00	25.79
	atom	1534	CA	GLY	198	34.119	4.779	31.995	1.00	21.47
	atom	1535	C	GLY	198	32.938	5.731	31.928	1.00	18.39
	atom	1536	O	GLY	198	31.867	5.480	32.503	1.00	15.12
	atom	1537	N	GLN	199	33.123	6.842	31.235	1.00	17.90
30	atom	1538	CA	GLN	199	32.033	7.798	31.104	1.00	23.69
	atom	1539	CB	GLN	199	32.587	9.130	30.616	1.00	26.63
	atom	1540	CG	GLN	199	33.592	9.732	31.595	1.00	24.77
	atom	1541	CD	GLN	199	34.400	10.856	30.977	1.00	29.54
	atom	1542	OE1	GLN	199	34.958	10.715	29.889	1.00	23.75
35	atom	1543	NE2	GLN	199	34.470	11.982	31.675	1.00	29.26
	atom	1544	C	GLN	199	30.928	7.279	30.172	1.00	24.56

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5	atom	1545	O	GLN	199	29.765	7.678	30.288	1.00	28.87
	atom	1546	N	ARG	200	31.287	6.373	29.264	1.00	21.97
	atom	1547	CA	ARG	200	30.306	5.803	28.351	1.00	21.41
	atom	1548	CB	ARG	200	30.965	4.906	27.307	1.00	22.44
	atom	1549	CG	ARG	200	30.330	5.021	25.941	1.00	24.72
	atom	1550	CD	ARG	200	30.120	3.666	25.239	1.00	29.31
	atom	1551	NE	ARG	200	29.402	3.853	23.975	1.00	27.95
	atom	1552	CZ	ARG	200	28.971	2.872	23.202	1.00	28.38
10	atom	1553	NH1	ARG	200	29.177	1.603	23.542	1.00	39.86
	atom	1554	NH2	ARG	200	28.298	3.161	22.107	1.00	33.61
	atom	1555	C	ARG	200	29.326	4.976	29.138	1.00	20.61
	atom	1556	O	ARG	200	28.120	4.974	28.858	1.00	18.42
15	atom	1557	N	VAL	201	29.845	4.258	30.130	1.00	20.11
	atom	1558	CA	VAL	201	28.981	3.426	30.951	1.00	16.47
	atom	1559	CB	VAL	201	29.818	2.407	31.768	1.00	23.27
	atom	1560	CG1	VAL	201	30.856	3.125	32.639	1.00	23.85
20	atom	1561	CG2	VAL	201	28.891	1.532	32.598	1.00	26.32
	atom	1562	C	VAL	201	28.118	4.307	31.850	1.00	13.87
	atom	1563	O	VAL	201	26.908	4.103	31.975	1.00	8.32
	atom	1564	N	GLU	202	28.735	5.321	32.441	1.00	17.54
	atom	1565	CA	GLU	202	28.018	6.232	33.326	1.00	16.90
	atom	1566	CB	GLU	202	28.951	7.378	33.752	1.00	19.88
	atom	1567	CG	GLU	202	28.444	8.294	34.881	1.00	22.45
	atom	1568	CD	GLU	202	29.154	9.672	34.925	1.00	27.15
25	atom	1569	OE1	GLU	202	30.263	9.831	34.348	1.00	26.78
	atom	1570	OE2	GLU	202	28.598	10.606	35.548	1.00	29.71
	atom	1571	C	GLU	202	26.794	6.785	32.592	1.00	22.44
	atom	1572	O	GLU	202	25.698	6.861	33.162	1.00	22.88
30	atom	1573	N	PHE	203	26.979	7.124	31.314	1.00	19.14
	atom	1574	CA	PHE	203	25.915	7.693	30.506	1.00	15.22
	atom	1575	CB	PHE	203	26.542	8.408	29.300	1.00	17.64
	atom	1576	CG	PHE	203	25.544	9.051	28.376	1.00	21.29
35	atom	1577	CD1	PHE	203	25.510	8.705	27.024	1.00	18.86
	atom	1578	CD2	PHE	203	24.622	9.989	28.857	1.00	19.90
	atom	1579	CE1	PHE	203	24.562	9.279	26.150	1.00	19.52
	atom	1580	CE2	PHE	203	23.671	10.576	28.002	1.00	19.32

	atom	1581	CZ	PHE	203	23.639	10.218	26.643	1.00	21.32
	atom	1582	C	PHE	203	24.847	6.677	30.071	1.00	18.08
	atom	1583	O	PHE	203	23.674	7.017	29.943	1.00	21.36
	atom	1584	N	LEU	204	25.222	5.429	29.843	1.00	15.58
5	atom	1585	CA	LEU	204	24.208	4.460	29.435	1.00	16.10
	atom	1586	CB	LEU	204	24.862	3.191	28.864	1.00	12.24
	atom	1587	CG	LEU	204	25.732	3.460	27.630	1.00	20.18
	atom	1588	CD1	LEU	204	26.698	2.271	27.360	1.00	11.68
	atom	1589	CD2	LEU	204	24.794	3.757	26.412	1.00	15.33
10	atom	1590	C	LEU	204	23.333	4.116	30.641	1.00	17.00
	atom	1591	O	LEU	204	22.107	4.178	30.561	1.00	14.29
	atom	1592	N	VAL	205	23.976	3.754	31.754	1.00	18.18
	atom	1593	CA	VAL	205	23.277	3.406	32.989	1.00	17.32
	atom	1594	CB	VAL	205	24.299	3.141	34.149	1.00	21.22
15	atom	1595	CG1	VAL	205	23.589	2.601	35.354	1.00	21.39
	atom	1596	CG2	VAL	205	25.374	2.141	33.718	1.00	13.01
	atom	1597	C	VAL	205	22.343	4.572	33.378	1.00	20.78
	atom	1598	O	VAL	205	21.143	4.385	33.624	1.00	20.38
	atom	1599	N	ASN	206	22.890	5.780	33.408	1.00	22.91
20	atom	1600	CA	ASN	206	22.107	6.966	33.763	1.00	25.38
	atom	1601	CB	ASN	206	22.974	8.216	33.745	1.00	26.40
	atom	1602	CG	ASN	206	23.744	8.389	35.005	1.00	19.55
	atom	1603	OD1	ASN	206	24.444	9.382	35.184	1.00	21.80
	atom	1604	ND2	ASN	206	23.630	7.416	35.898	1.00	23.29
25	atom	1605	C	ASN	206	20.961	7.192	32.815	1.00	26.44
	atom	1606	O	ASN	206	19.839	7.462	33.242	1.00	28.16
	atom	1607	N	THR	207	21.256	7.127	31.523	1.00	24.98
	atom	1608	CA	THR	207	20.219	7.313	30.530	1.00	21.70
	atom	1609	CB	THR	207	20.753	7.043	29.129	1.00	17.74
30	atom	1610	OG1	THR	207	21.645	8.099	28.752	1.00	16.88
	atom	1611	CG2	THR	207	19.609	6.968	28.142	1.00	22.24
	atom	1612	C	THR	207	19.108	6.326	30.861	1.00	21.12
	atom	1613	O	THR	207	17.939	6.694	30.952	1.00	20.10
	atom	1614	N	TRP	208	19.505	5.073	31.052	1.00	23.41
35	atom	1615	CA	TRP	208	18.605	3.973	31.400	1.00	28.02
	atom	1616	CB	TRP	208	19.424	2.689	31.533	1.00	27.05

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	atom	1617	CG	TRP	208	18.613	1.453	31.511	1.00	31.65
	atom	1618	CD2	TRP	208	18.175	0.738	30.352	1.00	33.96
	atom	1619	CE2	TRP	208	17.439	-0.377	30.803	1.00	34.68
	atom	1620	CE3	TRP	208	18.324	0.937	28.975	1.00	33.40
5	atom	1621	CD1	TRP	208	18.146	0.763	32.586	1.00	31.92
	atom	1622	NE1	TRP	208	17.440	-0.339	32.171	1.00	35.78
	atom	1623	CZ2	TRP	208	16.863	-1.299	29.929	1.00	36.13
	atom	1624	CZ3	TRP	208	17.749	0.019	28.103	1.00	31.62
	atom	1625	CH2	TRP	208	17.024	-1.082	28.586	1.00	32.37
10	atom	1626	C	TRP	208	17.836	4.214	32.711	1.00	32.31
	atom	1627	O	TRP	208	16.647	3.906	32.821	1.00	34.09
	atom	1628	N	LYS	209	18.520	4.751	33.716	1.00	33.04
	atom	1629	CA	LYS	209	17.884	5.016	35.001	1.00	33.68
	atom	1630	CB	LYS	209	18.943	5.467	36.027	1.00	35.81
15	atom	1631	CG	LYS	209	19.240	4.451	37.153	1.00	34.82
	atom	1632	CD	LYS	209	19.556	3.046	36.626	1.00	30.83
	atom	1633	CE	LYS	209	20.925	2.582	37.117	1.00	33.81
	atom	1634	NZ	LYS	209	20.971	1.146	37.574	1.00	30.23
	atom	1635	C	LYS	209	16.785	6.077	34.881	1.00	33.73
20	atom	1636	O	LYS	209	15.681	5.911	35.407	1.00	35.70
	atom	1637	N	SER	210	17.102	7.163	34.185	1.00	34.05
	atom	1638	CA	SER	210	16.188	8.279	33.979	1.00	33.11
	atom	1639	CB	SER	210	16.905	9.384	33.211	1.00	31.63
	atom	1640	OG	SER	210	17.028	9.031	31.838	1.00	26.49
25	atom	1641	C	SER	210	14.932	7.896	33.208	1.00	36.12
	atom	1642	O	SER	210	14.069	8.733	32.955	1.00	38.49
	atom	1643	N	LYS	211	14.836	6.638	32.812	1.00	37.66
	atom	1644	CA	LYS	211	13.683	6.188	32.062	1.00	38.76
	atom	1645	CB	LYS	211	14.154	5.357	30.865	1.00	39.23
30	atom	1646	CG	LYS	211	14.039	6.076	29.532	1.00	43.26
	atom	1647	CD	LYS	211	14.542	7.523	29.589	1.00	36.45
	atom	1648	CE	LYS	211	15.434	7.817	28.384	1.00	35.75
	atom	1649	NZ	LYS	211	15.475	9.271	28.025	1.00	36.57
	atom	1650	C	LYS	211	12.756	5.360	32.953	1.00	41.48
35	atom	1651	O	LYS	211	13.161	4.326	33.493	1.00	40.77
	atom	1652	N	LYS	212	11.514	5.815	33.108	1.00	41.02

	atom	1653	CA	LYS	212	10.539	5.100	33.922	1.00	39.98
	atom	1654	CB	LYS	212	9.167	5.736	33.779	1.00	38.68
	atom	1655	CG	LYS	212	8.418	5.845	35.095	1.00	38.52
	atom	1656	CD	LYS	212	7.007	6.349	34.886	1.00	40.92
5	atom	1657	CE	LYS	212	6.969	7.864	34.750	1.00	39.61
	atom	1658	NZ	LYS	212	8.305	8.448	34.458	1.00	39.84
	atom	1659	C	LYS	212	10.472	3.650	33.477	1.00	42.66
	atom	1660	O	LYS	212	10.675	2.720	34.272	1.00	43.97
	atom	1661	N	ASN	213	10.176	3.460	32.198	1.00	43.21
10	atom	1662	CA	ASN	213	10.111	2.123	31.632	1.00	44.99
	atom	1663	CB	ASN	213	8.687	1.812	31.218	1.00	44.32
	atom	1664	CG	ASN	213	7.848	1.389	32.394	1.00	47.00
	atom	1665	OD1	ASN	213	7.978	0.264	32.885	1.00	47.23
	atom	1666	ND2	ASN	213	6.994	2.291	32.871	1.00	44.11
15	atom	1667	C	ASN	213	11.077	2.061	30.457	1.00	45.25
	atom	1668	O	ASN	213	10.706	2.296	29.302	1.00	48.85
	atom	1669	N	PRO	214	12.347	1.740	30.754	1.00	42.66
	atom	1670	CD	PRO	214	12.779	1.421	32.126	1.00	41.11
	atom	1671	CA	PRO	214	13.465	1.629	29.815	1.00	38.85
20	atom	1672	CB	PRO	214	14.679	1.443	30.730	1.00	39.58
	atom	1673	CG	PRO	214	14.122	0.774	31.913	1.00	40.23
	atom	1674	C	PRO	214	13.414	0.552	28.745	1.00	33.30
	atom	1675	O	PRO	214	13.110	-0.612	29.022	1.00	29.69
	atom	1676	N	MET	215	13.727	0.972	27.520	1.00	29.02
25	atom	1677	CA	MET	215	13.797	0.076	26.372	1.00	28.18
	atom	1678	CB	MET	215	12.484	0.020	25.590	1.00	31.27
	atom	1679	CG	MET	215	12.454	-1.102	24.548	1.00	32.65
	atom	1680	SD	MET	215	13.237	-0.662	22.962	1.00	44.77
	atom	1681	CE	MET	215	12.148	0.671	22.382	1.00	31.33
30	atom	1682	C	MET	215	14.869	0.639	25.481	1.00	25.30
	atom	1683	O	MET	215	14.883	1.830	25.208	1.00	23.84
	atom	1684	N	GLY	216	15.772	-0.224	25.045	1.00	22.88
	atom	1685	CA	GLY	216	16.840	0.215	24.184	1.00	26.69
	atom	1686	C	GLY	216	17.160	-0.813	23.126	1.00	28.78
35	atom	1687	O	GLY	216	16.853	-1.996	23.283	1.00	24.75
	atom	1688	N	PHE	217	17.778	-0.344	22.046	1.00	27.24

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	atom	1689	CA	PHE	217	18.162	-1.197	20.938	1.00	22.26
	atom	1690	CB	PHE	217	17.000	-1.345	19.931	1.00	21.51
	atom	1691	CG	PHE	217	16.623	-0.057	19.212	1.00	24.23
	atom	1692	CD1	PHE	217	15.596	0.761	19.701	1.00	18.03
5	atom	1693	CD2	PHE	217	17.322	0.359	18.066	1.00	24.84
	atom	1694	CE1	PHE	217	15.277	1.974	19.070	1.00	14.77
	atom	1695	CE2	PHE	217	17.007	1.582	17.426	1.00	17.90
	atom	1696	CZ	PHE	217	15.986	2.384	17.933	1.00	18.19
	atom	1697	C	PHE	217	19.380	-0.619	20.230	1.00	23.61
10	atom	1698	O	PHE	217	19.649	0.595	20.273	1.00	18.23
	atom	1699	N	SER	218	20.130	-1.504	19.588	1.00	21.59
	atom	1700	CA	SER	218	21.273	-1.075	18.837	1.00	20.66
	atom	1701	CB	SER	218	22.447	-2.013	19.053	1.00	18.24
	atom	1702	OG	SER	218	22.156	-3.312	18.588	1.00	31.33
15	atom	1703	C	SER	218	20.752	-1.166	17.425	1.00	18.59
	atom	1704	O	SER	218	19.708	-1.733	17.192	1.00	22.08
	atom	1705	N	TYR	219	21.453	-0.570	16.487	1.00	20.71
	atom	1706	CA	TYR	219	21.031	-0.629	15.115	1.00	24.24
	atom	1707	CB	TYR	219	20.477	0.718	14.653	1.00	25.03
20	atom	1708	CG	TYR	219	19.842	0.621	13.290	1.00	30.08
	atom	1709	CD1	TYR	219	18.504	0.242	13.155	1.00	28.21
	atom	1710	CE1	TYR	219	17.921	0.080	11.902	1.00	28.31
	atom	1711	CD2	TYR	219	20.582	0.849	12.132	1.00	23.75
	atom	1712	CE2	TYR	219	20.003	0.688	10.871	1.00	26.41
25	atom	1713	CZ	TYR	219	18.677	0.298	10.765	1.00	25.69
	atom	1714	OH	TYR	219	18.123	0.059	9.531	1.00	24.99
	atom	1715	C	TYR	219	22.281	-0.961	14.343	1.00	25.43
	atom	1716	O	TYR	219	23.206	-0.153	14.297	1.00	26.39
	atom	1717	N	ASP	220	22.329	-2.156	13.769	1.00	28.31
30	atom	1718	CA	ASP	220	23.496	-2.558	12.996	1.00	31.56
	atom	1719	CB	ASP	220	23.830	-4.030	13.226	1.00	33.93
	atom	1720	CG	ASP	220	25.261	-4.361	12.827	1.00	42.92
	atom	1721	OD1	ASP	220	26.170	-3.557	13.165	1.00	40.05
	atom	1722	OD2	ASP	220	25.476	-5.410	12.170	1.00	44.65
35	atom	1723	C	ASP	220	23.227	-2.320	11.520	1.00	33.04
	atom	1724	O	ASP	220	22.497	-3.073	10.877	1.00	31.00

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5	atom	1725	N	THR	221	23.808	-1.263	10.980	1.00	32.02
	atom	1726	CA	THR	221	23.591	-0.958	9.581	1.00	38.44
	atom	1727	CB	THR	221	23.564	0.584	9.406	1.00	41.81
	atom	1728	OG1	THR	221	24.010	0.941	8.092	1.00	50.19
	atom	1729	CG2	THR	221	24.430	1.251	10.476	1.00	41.82
	atom	1730	C	THR	221	24.656	-1.663	8.704	1.00	38.27
	atom	1731	O	THR	221	25.861	-1.558	8.961	1.00	37.56
	atom	1732	N	ARG	222	24.204	-2.402	7.689	1.00	36.38
10	atom	1733	CA	ARG	222	25.105	-3.153	6.805	1.00	38.82
	atom	1734	CB	ARG	222	24.277	-4.055	5.887	1.00	44.88
	atom	1735	CG	ARG	222	24.392	-5.532	6.237	1.00	55.39
	atom	1736	CD	ARG	222	24.585	-6.394	5.000	1.00	60.84
	atom	1737	NE	ARG	222	25.888	-6.166	4.375	1.00	65.59
15	atom	1738	CZ	ARG	222	26.415	-6.937	3.424	1.00	66.51
	atom	1739	NH1	ARG	222	25.751	-7.997	2.976	1.00	65.57
	atom	1740	NH2	ARG	222	27.611	-6.649	2.921	1.00	67.20
	atom	1741	C	ARG	222	26.087	-2.312	5.964	1.00	35.30
	atom	1742	O	ARG	222	25.664	-1.489	5.144	1.00	34.68
20	atom	1743	N	CYS	223	27.391	-2.552	6.140	1.00	28.37
	atom	1744	CA	CYS	223	28.425	-1.786	5.431	1.00	25.64
	atom	1745	CB	CYS	223	28.693	-2.330	4.026	1.00	28.82
	atom	1746	SG	CYS	223	27.878	-3.882	3.597	1.00	38.53
	atom	1747	C	CYS	223	27.953	-0.345	5.334	1.00	24.16
25	atom	1748	O	CYS	223	27.476	0.127	4.296	1.00	26.66
	atom	1749	N	PHE	224	28.069	0.355	6.445	1.00	19.76
	atom	1750	CA	PHE	224	27.617	1.720	6.495	1.00	17.21
	atom	1751	CB	PHE	224	27.856	2.311	7.877	1.00	11.71
	atom	1752	CG	PHE	224	27.251	3.641	8.038	1.00	6.54
30	atom	1753	CD1	PHE	224	28.009	4.766	7.904	1.00	3.35
	atom	1754	CD2	PHE	224	25.892	3.765	8.248	1.00	12.53
	atom	1755	CE1	PHE	224	27.436	6.004	7.966	1.00	12.14
	atom	1756	CE2	PHE	224	25.299	5.013	8.317	1.00	17.37
	atom	1757	CZ	PHE	224	26.080	6.136	8.172	1.00	12.23
35	atom	1758	C	PHE	224	28.303	2.578	5.449	1.00	20.24
	atom	1759	O	PHE	224	27.700	3.501	4.899	1.00	18.35
	atom	1760	N	ASP	225	29.573	2.269	5.197	1.00	19.31

5	atom	1761	CA	ASP	225	30.362	3.005	4.227	1.00	16.43
	atom	1762	CB	ASP	225	31.798	2.482	4.217	1.00	18.29
	atom	1763	CG	ASP	225	32.601	2.966	5.417	1.00	19.09
	atom	1764	OD1	ASP	225	31.977	3.479	6.366	1.00	17.99
	atom	1765	OD2	ASP	225	33.845	2.837	5.415	1.00	17.38
	atom	1766	C	ASP	225	29.760	2.899	2.842	1.00	17.37
	atom	1767	O	ASP	225	29.723	3.883	2.110	1.00	20.94
	atom	1768	N	SER	226	29.261	1.717	2.492	1.00	15.11
10	atom	1769	CA	SER	226	28.673	1.514	1.176	1.00	14.56
	atom	1770	CB	SER	226	28.655	0.021	0.851	1.00	17.21
	atom	1771	OG	SER	226	29.953	-0.366	0.410	1.00	21.67
	atom	1772	C	SER	226	27.276	2.113	0.982	1.00	14.33
15	atom	1773	O	SER	226	26.799	2.244	-0.147	1.00	10.11
	atom	1774	N	THR	227	26.623	2.490	2.073	1.00	9.91
	atom	1775	CA	THR	227	25.294	3.071	1.971	1.00	8.56
	atom	1776	CB	THR	227	24.369	2.649	3.150	1.00	10.08
	atom	1777	OG1	THR	227	24.792	3.302	4.359	1.00	12.01
20	atom	1778	CG2	THR	227	24.418	1.143	3.355	1.00	10.18
	atom	1779	C	THR	227	25.350	4.574	1.969	1.00	6.14
	atom	1780	O	THR	227	24.344	5.214	1.758	1.00	11.13
	atom	1781	N	VAL	228	26.513	5.153	2.230	1.00	5.87
	atom	1782	CA	VAL	228	26.582	6.601	2.228	1.00	9.08
	atom	1783	CB	VAL	228	27.858	7.094	2.921	1.00	7.34
25	atom	1784	CG1	VAL	228	27.948	8.626	2.854	1.00	6.44
	atom	1785	CG2	VAL	228	27.844	6.631	4.371	1.00	9.87
	atom	1786	C	VAL	228	26.515	7.106	0.781	1.00	12.58
	atom	1787	O	VAL	228	27.266	6.663	-0.092	1.00	14.27
30	atom	1788	N	THR	229	25.599	8.031	0.532	1.00	10.63
	atom	1789	CA	THR	229	25.429	8.566	-0.799	1.00	8.72
	atom	1790	CB	THR	229	23.944	8.879	-1.091	1.00	7.09
	atom	1791	OG1	THR	229	23.484	9.923	-0.228	1.00	5.58
	atom	1792	CG2	THR	229	23.100	7.649	-0.881	1.00	5.09
	atom	1793	C	THR	229	26.245	9.821	-1.001	1.00	15.73
35	atom	1794	O	THR	229	26.903	10.327	-0.070	1.00	17.77
	atom	1795	N	GLU	230	26.209	10.321	-2.229	1.00	15.28
	atom	1796	CA	GLU	230	26.933	11.522	-2.568	1.00	16.64

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	atom	1797	CB	GLU	230	26.949	11.705	-4.082	1.00	26.00
	atom	1798	CG	GLU	230	27.757	10.621	-4.804	1.00	34.06
	atom	1799	CD	GLU	230	28.196	11.032	-6.212	1.00	38.31
	atom	1800	OE1	GLU	230	27.683	12.059	-6.730	1.00	37.25
5	atom	1801	OE2	GLU	230	29.042	10.315	-6.799	1.00	39.10
	atom	1802	C	GLU	230	26.170	12.632	-1.885	1.00	17.08
	atom	1803	O	GLU	230	26.756	13.625	-1.413	1.00	16.22
	atom	1804	N	ASN	231	24.853	12.447	-1.827	1.00	11.51
	atom	1805	CA	ASN	231	23.985	13.406	-1.165	1.00	13.50
10	atom	1806	CB	ASN	231	22.547	12.925	-1.153	1.00	19.01
	atom	1807	CG	ASN	231	21.666	13.780	-0.266	1.00	22.76
	atom	1808	OD1	ASN	231	21.399	13.441	0.909	1.00	20.68
	atom	1809	ND2	ASN	231	21.202	14.897	-0.820	1.00	17.27
	atom	1810	C	ASN	231	24.424	13.570	0.285	1.00	14.00
15	atom	1811	O	ASN	231	24.589	14.691	0.765	1.00	13.52
	atom	1812	N	ASP	232	24.593	12.437	0.974	1.00	8.91
	atom	1813	CA	ASP	232	25.013	12.407	2.372	1.00	2.20
	atom	1814	CB	ASP	232	25.279	10.970	2.794	1.00	2.00
	atom	1815	CG	ASP	232	24.033	10.129	2.822	1.00	3.69
20	atom	1816	OD1	ASP	232	24.182	8.903	2.689	1.00	10.01
	atom	1817	OD2	ASP	232	22.918	10.669	2.991	1.00	2.00
	atom	1818	C	ASP	232	26.290	13.211	2.589	1.00	7.59
	atom	1819	O	ASP	232	26.374	14.055	3.490	1.00	6.64
	atom	1820	N	ILE	233	27.295	12.907	1.765	1.00	8.41
25	atom	1821	CA	ILE	233	28.588	13.565	1.820	1.00	11.32
	atom	1822	CB	ILE	233	29.612	12.848	0.900	1.00	15.31
	atom	1823	CG2	ILE	233	30.929	13.593	0.898	1.00	9.82
	atom	1824	CG1	ILE	233	29.813	11.416	1.384	1.00	14.26
	atom	1825	CD1	ILE	233	29.979	10.419	0.281	1.00	19.91
30	atom	1826	C	ILE	233	28.481	15.035	1.420	1.00	13.30
	atom	1827	O	ILE	233	29.285	15.857	1.880	1.00	10.15
	atom	1828	N	ARG	234	27.498	15.368	0.574	1.00	7.69
	atom	1829	CA	ARG	234	27.331	16.768	0.184	1.00	10.10
	atom	1830	CB	ARG	234	26.530	16.900	-1.103	1.00	6.01
35	atom	1831	CG	ARG	234	27.417	17.138	-2.298	1.00	17.01
	atom	1832	CD	ARG	234	26.619	17.293	-3.600	1.00	21.96

5	atom	1833	NE	ARG	234	27.082	16.371	-4.630	1.00	24.65
	atom	1834	CZ	ARG	234	26.349	15.365	-5.111	1.00	34.89
	atom	1835	NH1	ARG	234	25.113	15.153	-4.656	1.00	34.61
	atom	1836	NH2	ARG	234	26.851	14.553	-6.037	1.00	31.42
	atom	1837	C	ARG	234	26.625	17.475	1.322	1.00	8.60
	atom	1838	O	ARG	234	26.956	18.600	1.665	1.00	14.56
	atom	1839	N	VAL	235	25.656	16.787	1.905	1.00	9.72
	atom	1840	CA	VAL	235	24.902	17.288	3.039	1.00	13.66
10	atom	1841	CB	VAL	235	23.873	16.229	3.508	1.00	19.56
	atom	1842	CG1	VAL	235	23.341	16.596	4.897	1.00	20.84
	atom	1843	CG2	VAL	235	22.725	16.119	2.487	1.00	8.84
	atom	1844	C	VAL	235	25.946	17.544	4.137	1.00	18.09
15	atom	1845	O	VAL	235	25.908	18.550	4.853	1.00	15.25
	atom	1846	N	GLU	236	26.893	16.622	4.250	1.00	16.55
	atom	1847	CA	GLU	236	27.974	16.776	5.209	1.00	21.32
	atom	1848	CB	GLU	236	29.018	15.693	4.987	1.00	25.28
	atom	1849	CG	GLU	236	29.445	14.939	6.205	1.00	26.53
	atom	1850	CD	GLU	236	30.090	13.622	5.831	1.00	30.94
	atom	1851	OE1	GLU	236	29.355	12.613	5.779	1.00	30.71
	atom	1852	OE2	GLU	236	31.321	13.604	5.585	1.00	29.82
20	atom	1853	C	GLU	236	28.647	18.136	5.009	1.00	23.02
	atom	1854	O	GLU	236	28.558	19.013	5.854	1.00	27.89
	atom	1855	N	GLU	237	29.329	18.303	3.882	1.00	25.21
	atom	1856	CA	GLU	237	30.035	19.547	3.581	1.00	25.51
25	atom	1857	CB	GLU	237	30.327	19.612	2.087	1.00	28.35
	atom	1858	CG	GLU	237	31.306	20.686	1.692	1.00	28.67
	atom	1859	CD	GLU	237	30.690	21.709	0.744	1.00	30.11
	atom	1860	OE1	GLU	237	29.455	21.703	0.543	1.00	32.75
30	atom	1861	OE2	GLU	237	31.443	22.529	0.196	1.00	28.55
	atom	1862	C	GLU	237	29.312	20.829	4.021	1.00	27.38
	atom	1863	O	GLU	237	29.936	21.737	4.603	1.00	25.26
	atom	1864	N	SER	238	28.004	20.900	3.758	1.00	25.92
35	atom	1865	CA	SER	238	27.221	22.089	4.113	1.00	22.66
	atom	1866	CB	SER	238	25.820	22.024	3.481	1.00	26.27
	atom	1867	OG	SER	238	24.918	21.202	4.201	1.00	20.41
	atom	1868	C	SER	238	27.130	22.344	5.619	1.00	22.53

	atom	1869	O	SER	238	26.926	23.481	6.055	1.00	23.80
	atom	1870	N	ILE	239	27.278	21.286	6.408	1.00	19.38
	atom	1871	CA	ILE	239	27.271	21.416	7.863	1.00	18.62
	atom	1872	CB	ILE	239	27.138	20.044	8.548	1.00	12.66
5	atom	1873	CG2	ILE	239	27.433	20.172	10.031	1.00	13.29
	atom	1874	CG1	ILE	239	25.719	19.513	8.320	1.00	9.59
	atom	1875	CD1	ILE	239	25.482	18.160	8.914	1.00	8.77
	atom	1876	C	ILE	239	28.620	22.050	8.240	1.00	19.33
	atom	1877	O	ILE	239	28.675	23.007	9.002	1.00	22.17
10	atom	1878	N	TYR	240	29.706	21.512	7.692	1.00	18.63
	atom	1879	CA	TYR	240	31.033	22.060	7.937	1.00	15.25
	atom	1880	CB	TYR	240	32.101	21.358	7.099	1.00	12.94
	atom	1881	CG	TYR	240	32.232	19.879	7.303	1.00	15.61
	atom	1882	CD1	TYR	240	31.810	19.268	8.494	1.00	7.96
15	atom	1883	CE1	TYR	240	31.900	17.894	8.658	1.00	14.82
	atom	1884	CD2	TYR	240	32.751	19.070	6.279	1.00	12.69
	atom	1885	CE2	TYR	240	32.845	17.684	6.428	1.00	13.70
	atom	1886	CZ	TYR	240	32.412	17.100	7.622	1.00	19.88
	atom	1887	OH	TYR	240	32.459	15.729	7.766	1.00	22.17
20	atom	1888	C	TYR	240	31.060	23.524	7.527	1.00	17.48
	atom	1889	O	TYR	240	31.664	24.344	8.210	1.00	18.27
	atom	1890	N	GLN	241	30.417	23.846	6.401	1.00	16.83
	atom	1891	CA	GLN	241	30.428	25.219	5.900	1.00	16.08
	atom	1892	CB	GLN	241	29.932	25.296	4.439	1.00	16.21
25	atom	1893	CG	GLN	241	30.778	24.585	3.374	1.00	9.37
	atom	1894	CD	GLN	241	32.164	25.184	3.171	1.00	17.64
	atom	1895	OE1	GLN	241	32.458	26.302	3.620	1.00	14.54
	atom	1896	NE2	GLN	241	33.032	24.432	2.484	1.00	16.20
	atom	1897	C	GLN	241	29.578	26.137	6.768	1.00	18.69
30	atom	1898	O	GLN	241	29.616	27.355	6.628	1.00	18.09
	atom	1899	N	CYS	242	28.786	25.560	7.655	1.00	19.26
	atom	1900	CA	CYS	242	27.983	26.385	8.519	1.00	17.13
	atom	1901	CB	CYS	242	26.889	25.548	9.145	1.00	16.03
	atom	1902	SG	CYS	242	25.549	25.325	7.971	1.00	24.62
35	atom	1903	C	CYS	242	28.922	26.979	9.568	1.00	21.09
	atom	1904	O	CYS	242	28.552	27.911	10.295	1.00	19.82

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5	atom	1905	N	CYS	243	30.141	26.436	9.617	1.00	21.37
	atom	1906	CA	CYS	243	31.188	26.907	10.534	1.00	24.50
	atom	1907	CB	CYS	243	32.382	25.951	10.579	1.00	15.34
	atom	1908	SG	CYS	243	32.092	24.409	11.389	1.00	29.68
	atom	1909	C	CYS	243	31.730	28.235	10.034	1.00	26.31
	atom	1910	O	CYS	243	31.511	28.621	8.883	1.00	21.13
	atom	1911	N	ASP	244	32.445	28.920	10.919	1.00	28.04
	atom	1912	CA	ASP	244	33.085	30.174	10.580	1.00	27.16
10	atom	1913	CB	ASP	244	33.130	31.100	11.784	1.00	29.16
	atom	1914	CG	ASP	244	33.905	32.357	11.514	1.00	31.43
	atom	1915	OD1	ASP	244	35.117	32.266	11.220	1.00	37.16
	atom	1916	OD2	ASP	244	33.294	33.441	11.590	1.00	36.68
15	atom	1917	C	ASP	244	34.487	29.727	10.237	1.00	25.91
	atom	1918	O	ASP	244	35.279	29.447	11.129	1.00	26.07
	atom	1919	N	LEU	245	34.776	29.634	8.944	1.00	26.85
	atom	1920	CA	LEU	245	36.088	29.191	8.467	1.00	25.33
	atom	1921	CB	LEU	245	35.944	27.889	7.661	1.00	23.00
	atom	1922	CG	LEU	245	35.291	26.675	8.334	1.00	23.70
20	atom	1923	CD1	LEU	245	34.274	26.094	7.391	1.00	24.92
	atom	1924	CD2	LEU	245	36.349	25.633	8.710	1.00	23.20
	atom	1925	C	LEU	245	36.846	30.213	7.609	1.00	25.10
	atom	1926	O	LEU	245	36.262	31.073	6.931	1.00	19.47
	atom	1927	N	ALA	246	38.165	30.127	7.661	1.00	22.80
25	atom	1928	CA	ALA	246	38.968	31.003	6.841	1.00	24.53
	atom	1929	CB	ALA	246	40.432	30.626	6.981	1.00	18.27
	atom	1930	C	ALA	246	38.488	30.761	5.391	1.00	25.10
	atom	1931	O	ALA	246	38.089	29.647	5.030	1.00	21.52
	atom	1932	N	PRO	247	38.515	31.802	4.549	1.00	25.86
30	atom	1933	CD	PRO	247	38.964	33.168	4.880	1.00	26.97
	atom	1934	CA	PRO	247	38.086	31.683	3.146	1.00	24.74
	atom	1935	CB	PRO	247	38.381	33.070	2.561	1.00	24.27
	atom	1936	CG	PRO	247	38.414	33.994	3.744	1.00	23.86
	atom	1937	C	PRO	247	38.806	30.564	2.363	1.00	25.32
35	atom	1938	O	PRO	247	38.227	29.934	1.483	1.00	27.92
	atom	1939	N	GLU	248	40.070	30.335	2.693	1.00	26.43
	atom	1940	CA	GLU	248	40.895	29.310	2.064	1.00	29.15

5	atom	1941	CB	GLU	248	42.361	29.577	2.371	1.00	35.18
	atom	1942	CG	GLU	248	42.988	30.634	1.512	1.00	40.16
	atom	1943	CD	GLU	248	44.358	30.220	1.075	1.00	42.56
	atom	1944	OE1	GLU	248	44.555	29.000	0.850	1.00	42.61
	atom	1945	OE2	GLU	248	45.232	31.109	0.966	1.00	46.82
	atom	1946	C	GLU	248	40.565	27.908	2.561	1.00	32.21
	atom	1947	O	GLU	248	40.986	26.914	1.967	1.00	35.01
	atom	1948	N	ALA	249	39.866	27.829	3.684	1.00	26.94
10	atom	1949	CA	ALA	249	39.477	26.542	4.232	1.00	27.37
	atom	1950	CB	ALA	249	39.255	26.651	5.769	1.00	26.86
	atom	1951	C	ALA	249	38.178	26.153	3.524	1.00	24.28
	atom	1952	O	ALA	249	37.995	25.002	3.128	1.00	21.70
15	atom	1953	N	ARG	250	37.293	27.136	3.362	1.00	20.43
	atom	1954	CA	ARG	250	36.021	26.932	2.700	1.00	23.31
	atom	1955	CB	ARG	250	35.296	28.256	2.585	1.00	23.72
	atom	1956	CG	ARG	250	34.488	28.629	3.788	1.00	28.13
	atom	1957	CD	ARG	250	33.625	29.837	3.472	1.00	24.38
	atom	1958	NE	ARG	250	33.181	30.546	4.674	1.00	31.26
	atom	1959	CZ	ARG	250	32.473	30.001	5.659	1.00	28.67
20	atom	1960	NH1	ARG	250	32.115	28.727	5.600	1.00	28.56
	atom	1961	NH2	ARG	250	32.115	30.736	6.702	1.00	34.72
	atom	1962	C	ARG	250	36.224	26.353	1.308	1.00	23.99
	atom	1963	O	ARG	250	35.535	25.426	0.898	1.00	29.35
25	atom	1964	N	GLN	251	37.178	26.914	0.580	1.00	29.27
	atom	1965	CA	GLN	251	37.475	26.468	-0.779	1.00	34.81
	atom	1966	CB	GLN	251	38.363	27.506	-1.477	1.00	36.88
	atom	1967	CG	GLN	251	38.883	27.078	-2.832	1.00	42.09
	atom	1968	CD	GLN	251	37.819	27.097	-3.916	1.00	45.34
30	atom	1969	OE1	GLN	251	36.724	27.641	-3.742	1.00	43.73
	atom	1970	NE2	GLN	251	38.142	26.494	-5.052	1.00	49.17
	atom	1971	C	GLN	251	38.169	25.103	-0.749	1.00	33.48
	atom	1972	O	GLN	251	38.177	24.362	-1.738	1.00	34.28
35	atom	1973	N	ALA	252	38.743	24.782	0.404	1.00	31.45
	atom	1974	CA	ALA	252	39.446	23.519	0.609	1.00	26.65
	atom	1975	CB	ALA	252	40.392	23.635	1.821	1.00	26.35
	atom	1976	C	ALA	252	38.437	22.422	0.856	1.00	23.26

5	atom	1977	O	ALA	252	38.566	21.308	0.353	1.00	26.20
	atom	1978	N	ILE	253	37.426	22.762	1.636	1.00	20.70
	atom	1979	CA	ILE	253	36.392	21.826	1.998	1.00	25.42
	atom	1980	CB	ILE	253	35.603	22.364	3.221	1.00	26.48
	atom	1981	CG2	ILE	253	34.194	21.777	3.258	1.00	25.77
	atom	1982	CG1	ILE	253	36.364	22.012	4.501	1.00	23.51
	atom	1983	CD1	ILE	253	36.576	23.185	5.419	1.00	19.45
	atom	1984	C	ILE	253	35.452	21.548	0.829	1.00	28.11
10	atom	1985	O	ILE	253	34.935	20.433	0.690	1.00	28.35
	atom	1986	N	LYS	254	35.221	22.555	-0.010	1.00	27.94
	atom	1987	CA	LYS	254	34.344	22.362	-1.164	1.00	27.29
	atom	1988	CB	LYS	254	34.041	23.692	-1.859	1.00	31.22
15	atom	1989	CG	LYS	254	32.903	23.619	-2.849	1.00	32.19
	atom	1990	CD	LYS	254	33.313	24.099	-4.223	1.00	36.74
	atom	1991	CE	LYS	254	32.348	25.160	-4.726	1.00	41.08
	atom	1992	NZ	LYS	254	31.308	24.585	-5.610	1.00	43.09
	atom	1993	C	LYS	254	35.079	21.448	-2.117	1.00	26.57
	atom	1994	O	LYS	254	34.535	20.441	-2.600	1.00	26.31
	atom	1995	N	SER	255	36.338	21.794	-2.353	1.00	23.15
	atom	1996	CA	SER	255	37.185	21.018	-3.236	1.00	25.37
20	atom	1997	CB	SER	255	38.569	21.643	-3.327	1.00	22.33
	atom	1998	OG	SER	255	39.368	20.833	-4.169	1.00	32.54
	atom	1999	C	SER	255	37.334	19.539	-2.858	1.00	24.84
	atom	2000	O	SER	255	37.027	18.666	-3.672	1.00	27.25
25	atom	2001	N	LEU	256	37.802	19.243	-1.645	1.00	17.04
	atom	2002	CA	LEU	256	37.973	17.840	-1.269	1.00	15.83
	atom	2003	CB	LEU	256	38.584	17.739	0.127	1.00	18.84
	atom	2004	CG	LEU	256	40.082	18.046	0.258	1.00	16.70
30	atom	2005	CD1	LEU	256	40.300	18.977	1.445	1.00	16.41
	atom	2006	CD2	LEU	256	40.855	16.770	0.457	1.00	10.37
	atom	2007	C	LEU	256	36.635	17.090	-1.328	1.00	13.95
	atom	2008	O	LEU	256	36.570	15.906	-1.656	1.00	14.47
35	atom	2009	N	THR	257	35.552	17.788	-1.023	1.00	12.60
	atom	2010	CA	THR	257	34.250	17.151	-1.069	1.00	11.14
	atom	2011	CB	THR	257	33.190	18.104	-0.623	1.00	8.15
	atom	2012	OG1	THR	257	33.436	18.441	0.737	1.00	16.01

5	atom	2013	CG2	THR	257	31.814	17.490	-0.794	1.00	2.00
	atom	2014	C	THR	257	33.892	16.639	-2.466	1.00	12.38
	atom	2015	O	THR	257	33.528	15.480	-2.603	1.00	13.28
	atom	2016	N	GLU	258	33.992	17.501	-3.488	1.00	15.08
	atom	2017	CA	GLU	258	33.660	17.129	-4.881	1.00	16.55
	atom	2018	CB	GLU	258	33.467	18.368	-5.777	1.00	18.49
	atom	2019	CG	GLU	258	32.347	19.334	-5.396	1.00	12.86
	atom	2020	CD	GLU	258	30.980	18.902	-5.897	1.00	19.96
10	atom	2021	OE1	GLU	258	29.970	19.540	-5.533	1.00	28.35
	atom	2022	OE2	GLU	258	30.892	17.926	-6.658	1.00	18.70
	atom	2023	C	GLU	258	34.733	16.270	-5.535	1.00	16.06
	atom	2024	O	GLU	258	34.445	15.518	-6.463	1.00	24.28
15	atom	2025	N	ARG	259	35.961	16.355	-5.044	1.00	13.40
	atom	2026	CA	ARG	259	37.055	15.608	-5.652	1.00	15.24
	atom	2027	CB	ARG	259	38.331	16.434	-5.616	1.00	15.45
	atom	2028	CG	ARG	259	38.341	17.685	-6.499	1.00	18.00
	atom	2029	CD	ARG	259	39.610	17.646	-7.330	1.00	14.70
	atom	2030	NE	ARG	259	40.440	18.823	-7.238	1.00	19.54
20	atom	2031	CZ	ARG	259	41.722	18.841	-7.588	1.00	23.21
	atom	2032	NH1	ARG	259	42.296	17.739	-8.052	1.00	18.68
	atom	2033	NH2	ARG	259	42.424	19.965	-7.500	1.00	26.81
	atom	2034	C	ARG	259	37.375	14.253	-5.062	1.00	15.76
	atom	2035	O	ARG	259	37.733	13.317	-5.774	1.00	16.41
25	atom	2036	N	LEU	260	37.279	14.148	-3.749	1.00	18.48
	atom	2037	CA	LEU	260	37.620	12.905	-3.104	1.00	14.79
	atom	2038	CB	LEU	260	38.926	13.123	-2.358	1.00	14.19
	atom	2039	CG	LEU	260	39.383	12.280	-1.181	1.00	13.57
30	atom	2040	CD1	LEU	260	40.401	11.272	-1.632	1.00	9.18
	atom	2041	CD2	LEU	260	39.978	13.222	-0.155	1.00	10.22
	atom	2042	C	LEU	260	36.532	12.315	-2.210	1.00	13.96
	atom	2043	O	LEU	260	36.221	11.140	-2.337	1.00	9.01
	atom	2044	N	TYR	261	35.933	13.120	-1.340	1.00	12.89
	atom	2045	CA	TYR	261	34.901	12.597	-0.436	1.00	15.89
35	atom	2046	CB	TYR	261	34.425	13.698	0.526	1.00	13.43
	atom	2047	CG	TYR	261	35.528	14.180	1.445	1.00	11.40
	atom	2048	CD1	TYR	261	36.600	13.367	1.761	1.00	7.86

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5	atom	2049	CE1	TYR	261	37.627	13.832	2.555	1.00	13.56
	atom	2050	CD2	TYR	261	35.517	15.467	1.947	1.00	13.43
	atom	2051	CE2	TYR	261	36.531	15.934	2.727	1.00	13.28
	atom	2052	CZ	TYR	261	37.583	15.121	3.032	1.00	14.20
	atom	2053	OH	TYR	261	38.567	15.619	3.845	1.00	18.77
10	atom	2054	C	TYR	261	33.702	11.987	-1.139	1.00	14.37
	atom	2055	O	TYR	261	33.258	10.903	-0.791	1.00	13.68
	atom	2056	N	ILE	262	33.189	12.698	-2.134	1.00	17.32
	atom	2057	CA	ILE	262	32.035	12.262	-2.906	1.00	18.38
	atom	2058	CB	ILE	262	31.620	13.392	-3.850	1.00	24.13
15	atom	2059	CG2	ILE	262	31.733	12.967	-5.299	1.00	23.73
	atom	2060	CG1	ILE	262	30.228	13.869	-3.464	1.00	24.22
	atom	2061	CD1	ILE	262	30.270	15.040	-2.530	1.00	22.83
	atom	2062	C	ILE	262	32.279	10.981	-3.698	1.00	17.72
	atom	2063	O	ILE	262	31.361	10.208	-3.945	1.00	23.83
20	atom	2064	N	GLY	263	33.522	10.750	-4.089	1.00	14.02
	atom	2065	CA	GLY	263	33.822	9.567	-4.860	1.00	13.07
	atom	2066	C	GLY	263	35.048	9.801	-5.722	1.00	15.51
	atom	2067	O	GLY	263	35.675	10.874	-5.649	1.00	12.52
	atom	2068	N	GLY	264	35.380	8.808	-6.548	1.00	11.84
25	atom	2069	CA	GLY	264	36.543	8.912	-7.408	1.00	10.59
	atom	2070	C	GLY	264	37.030	7.554	-7.880	1.00	15.77
	atom	2071	O	GLY	264	36.468	6.526	-7.501	1.00	18.26
	atom	2072	N	PRO	265	38.062	7.522	-8.739	1.00	16.69
	atom	2073	CD	PRO	265	38.743	8.716	-9.275	1.00	21.57
30	atom	2074	CA	PRO	265	38.642	6.295	-9.283	1.00	15.40
	atom	2075	CB	PRO	265	39.563	6.796	-10.403	1.00	15.76
	atom	2076	CG	PRO	265	39.950	8.134	-10.015	1.00	15.43
	atom	2077	C	PRO	265	39.414	5.482	-8.253	1.00	15.52
	atom	2078	O	PRO	265	40.034	6.044	-7.363	1.00	11.46
35	atom	2079	N	LEU	266	39.404	4.161	-8.425	1.00	19.24
	atom	2080	CA	LEU	266	40.088	3.242	-7.522	1.00	19.03
	atom	2081	CB	LEU	266	39.097	2.180	-7.029	1.00	19.47
	atom	2082	CG	LEU	266	37.951	2.784	-6.208	1.00	23.78
	atom	2083	CD1	LEU	266	36.662	2.020	-6.470	1.00	16.22
	atom	2084	CD2	LEU	266	38.329	2.771	-4.716	1.00	22.20

5	atom	2085	C	LEU	266	41.324	2.555	-8.118	1.00	18.52
	atom	2086	O	LEU	266	41.220	1.656	-8.939	1.00	11.92
	atom	2087	N	THR	267	42.502	2.964	-7.662	1.00	23.15
	atom	2088	CA	THR	267	43.746	2.385	-8.146	1.00	26.03
	atom	2089	CB	THR	267	44.731	3.515	-8.442	1.00	26.23
	atom	2090	OG1	THR	267	44.023	4.584	-9.085	1.00	22.47
	atom	2091	CG2	THR	267	45.871	3.025	-9.330	1.00	22.48
	atom	2092	C	THR	267	44.341	1.402	-7.111	1.00	28.57
10	atom	2093	O	THR	267	44.317	1.685	-5.907	1.00	34.94
	atom	2094	N	ASN	268	44.854	0.257	-7.574	1.00	24.49
	atom	2095	CA	ASN	268	45.447	-0.741	-6.682	1.00	25.47
	atom	2096	CB	ASN	268	45.309	-2.144	-7.298	1.00	26.74
15	atom	2097	CG	ASN	268	46.118	-2.317	-8.567	1.00	26.59
	atom	2098	OD1	ASN	268	47.108	-1.631	-8.789	1.00	31.14
	atom	2099	ND2	ASN	268	45.697	-3.244	-9.403	1.00	23.96
	atom	2100	C	ASN	268	46.916	-0.448	-6.321	1.00	24.45
20	atom	2101	O	ASN	268	47.415	0.641	-6.576	1.00	25.01
	atom	2102	N	SER	269	47.609	-1.402	-5.709	1.00	25.69
	atom	2103	CA	SER	269	49.019	-1.182	-5.344	1.00	26.70
	atom	2104	CB	SER	269	49.531	-2.304	-4.423	1.00	23.84
	atom	2105	OG	SER	269	49.137	-3.591	-4.876	1.00	24.85
	atom	2106	C	SER	269	49.941	-1.080	-6.570	1.00	27.41
	atom	2107	O	SER	269	50.966	-0.383	-6.544	1.00	24.61
	atom	2108	N	LYS	270	49.560	-1.759	-7.646	1.00	27.65
25	atom	2109	CA	LYS	270	50.350	-1.756	-8.877	1.00	34.24
	atom	2110	CB	LYS	270	50.439	-3.172	-9.427	1.00	38.14
	atom	2111	CG	LYS	270	49.904	-4.202	-8.453	1.00	41.52
	atom	2112	CD	LYS	270	50.995	-5.139	-7.996	1.00	39.96
30	atom	2113	CE	LYS	270	50.755	-6.511	-8.584	1.00	41.32
	atom	2114	NZ	LYS	270	49.453	-6.575	-9.308	1.00	43.81
	atom	2115	C	LYS	270	49.826	-0.827	-9.965	1.00	32.73
	atom	2116	O	LYS	270	49.728	-1.225	-11.122	1.00	32.11
35	atom	2117	N	GLY	271	49.483	0.400	-9.569	1.00	32.07
	atom	2118	CA	GLY	271	48.991	1.414	-10.486	1.00	27.34
	atom	2119	C	GLY	271	47.811	1.148	-11.414	1.00	26.74
	atom	2120	O	GLY	271	47.401	2.070	-12.131	1.00	29.62

5	atom	2121	N	GLN	272	47.266	-0.065	-11.434	1.00	16.78
	atom	2122	CA	GLN	272	46.130	-0.367	-12.298	1.00	22.50
	atom	2123	CB	GLN	272	46.006	-1.879	-12.461	1.00	25.20
	atom	2124	CG	GLN	272	45.118	-2.350	-13.607	1.00	28.05
	atom	2125	CD	GLN	272	45.018	-3.871	-13.633	1.00	32.35
	atom	2126	OE1	GLN	272	44.301	-4.474	-14.450	1.00	33.79
	atom	2127	NE2	GLN	272	45.741	-4.500	-12.724	1.00	31.21
	atom	2128	C	GLN	272	44.817	0.220	-11.742	1.00	27.23
10	atom	2129	O	GLN	272	44.737	0.578	-10.560	1.00	29.76
	atom	2130	N	ASN	273	43.786	0.316	-12.586	1.00	26.20
	atom	2131	CA	ASN	273	42.499	0.884	-12.162	1.00	23.35
	atom	2132	CB	ASN	273	42.012	1.888	-13.211	1.00	30.32
15	atom	2133	CG	ASN	273	40.898	2.782	-12.692	1.00	38.52
	atom	2134	OD1	ASN	273	39.724	2.603	-13.043	1.00	38.61
	atom	2135	ND2	ASN	273	41.258	3.748	-11.842	1.00	35.47
	atom	2136	C	ASN	273	41.450	-0.196	-11.913	1.00	23.09
20	atom	2137	O	ASN	273	41.161	-1.012	-12.788	1.00	25.78
	atom	2138	N	CYS	274	40.859	-0.186	-10.724	1.00	23.19
	atom	2139	CA	CYS	274	39.897	-1.224	-10.330	1.00	25.74
	atom	2140	CB	CYS	274	40.167	-1.645	-8.878	1.00	24.20
25	atom	2141	SG	CYS	274	41.736	-2.465	-8.623	1.00	32.90
	atom	2142	C	CYS	274	38.408	-0.941	-10.453	1.00	26.08
	atom	2143	O	CYS	274	37.586	-1.876	-10.466	1.00	28.31
	atom	2144	N	GLY	275	38.050	0.335	-10.517	1.00	23.19
30	atom	2145	CA	GLY	275	36.646	0.672	-10.599	1.00	16.16
	atom	2146	C	GLY	275	36.427	2.072	-10.091	1.00	17.69
	atom	2147	O	GLY	275	37.376	2.835	-9.931	1.00	19.74
	atom	2148	N	TYR	276	35.173	2.416	-9.835	1.00	19.21
35	atom	2149	CA	TYR	276	34.836	3.739	-9.355	1.00	16.79
	atom	2150	CB	TYR	276	34.070	4.493	-10.431	1.00	17.22
	atom	2151	CG	TYR	276	34.243	5.978	-10.351	1.00	19.00
	atom	2152	CD1	TYR	276	35.434	6.571	-10.743	1.00	22.14
35	atom	2153	CE1	TYR	276	35.615	7.941	-10.648	1.00	19.36
	atom	2154	CD2	TYR	276	33.226	6.798	-9.852	1.00	14.77
	atom	2155	CE2	TYR	276	33.397	8.170	-9.754	1.00	10.07
	atom	2156	CZ	TYR	276	34.597	8.732	-10.155	1.00	16.49

5	atom	2157	OH	TYR	276	34.787	10.097	-10.115	1.00	22.80
	atom	2158	C	TYR	276	34.011	3.693	-8.076	1.00	22.07
	atom	2159	O	TYR	276	33.140	2.816	-7.904	1.00	16.49
	atom	2160	N	ARG	277	34.286	4.661	-7.193	1.00	22.20
	atom	2161	CA	ARG	277	33.605	4.779	-5.896	1.00	19.05
	atom	2162	CB	ARG	277	34.646	4.965	-4.796	1.00	16.38
	atom	2163	CG	ARG	277	34.065	5.125	-3.422	1.00	13.11
	atom	2164	CD	ARG	277	35.184	5.349	-2.433	1.00	12.73
10	atom	2165	NE	ARG	277	35.316	6.761	-2.171	1.00	10.46
	atom	2166	CZ	ARG	277	36.252	7.522	-2.699	1.00	13.10
	atom	2167	NH1	ARG	277	37.155	6.999	-3.524	1.00	19.62
	atom	2168	NH2	ARG	277	36.262	8.811	-2.428	1.00	11.60
15	atom	2169	C	ARG	277	32.587	5.927	-5.812	1.00	16.53
	atom	2170	O	ARG	277	32.871	7.046	-6.231	1.00	13.19
	atom	2171	N	ARG	278	31.412	5.643	-5.259	1.00	11.39
	atom	2172	CA	ARG	278	30.382	6.666	-5.109	1.00	17.01
	atom	2173	CB	ARG	278	29.261	6.436	-6.126	1.00	15.88
	atom	2174	CG	ARG	278	29.617	6.850	-7.545	1.00	25.88
	atom	2175	CD	ARG	278	28.637	6.259	-8.557	1.00	31.56
	atom	2176	NE	ARG	278	28.891	6.737	-9.914	1.00	38.90
20	atom	2177	CZ	ARG	278	29.297	5.959	-10.918	1.00	46.20
	atom	2178	NH1	ARG	278	29.498	4.657	-10.721	1.00	40.83
	atom	2179	NH2	ARG	278	29.501	6.485	-12.124	1.00	44.92
	atom	2180	C	ARG	278	29.802	6.709	-3.678	1.00	18.33
25	atom	2181	O	ARG	278	28.791	7.363	-3.413	1.00	14.86
	atom	2182	N	CYS	279	30.443	5.988	-2.763	1.00	18.74
	atom	2183	CA	CYS	279	30.013	5.951	-1.372	1.00	20.34
	atom	2184	CB	CYS	279	29.734	4.521	-0.910	1.00	13.54
30	atom	2185	SG	CYS	279	31.032	3.386	-1.400	1.00	11.81
	atom	2186	C	CYS	279	31.158	6.530	-0.580	1.00	19.14
	atom	2187	O	CYS	279	31.995	7.229	-1.131	1.00	18.85
	atom	2188	N	ARG	280	31.204	6.230	0.708	1.00	20.55
35	atom	2189	CA	ARG	280	32.266	6.765	1.551	1.00	19.72
	atom	2190	CB	ARG	280	31.760	6.890	2.994	1.00	17.16
	atom	2191	CG	ARG	280	32.765	6.504	4.033	1.00	18.71
	atom	2192	CD	ARG	280	32.721	7.441	5.217	1.00	21.86

5	atom	2193	NE	ARG	280	32.610	8.844	4.846	1.00	12.51
	atom	2194	CZ	ARG	280	31.542	9.602	5.089	1.00	16.04
	atom	2195	NH1	ARG	280	30.483	9.096	5.697	1.00	10.02
	atom	2196	NH2	ARG	280	31.543	10.884	4.738	1.00	16.85
	atom	2197	C	ARG	280	33.534	5.924	1.507	1.00	17.65
	atom	2198	O	ARG	280	33.477	4.698	1.508	1.00	16.85
	atom	2199	N	ALA	281	34.673	6.602	1.461	1.00	19.88
	atom	2200	CA	ALA	281	35.978	5.943	1.465	1.00	20.82
10	atom	2201	CB	ALA	281	37.025	6.809	0.748	1.00	17.70
	atom	2202	C	ALA	281	36.359	5.788	2.933	1.00	20.37
	atom	2203	O	ALA	281	36.121	6.686	3.730	1.00	17.90
	atom	2204	N	SER	282	36.964	4.658	3.275	1.00	23.63
15	atom	2205	CA	SER	282	37.369	4.377	4.643	1.00	24.68
	atom	2206	CB	SER	282	37.569	2.883	4.808	1.00	28.10
	atom	2207	OG	SER	282	38.795	2.513	4.200	1.00	34.10
	atom	2208	C	SER	282	38.640	5.071	5.121	1.00	22.98
20	atom	2209	O	SER	282	38.854	5.217	6.322	1.00	24.18
	atom	2210	N	GLY	283	39.491	5.492	4.200	1.00	22.59
	atom	2211	CA	GLY	283	40.740	6.108	4.625	1.00	15.51
	atom	2212	C	GLY	283	40.877	7.601	4.545	1.00	14.39
	atom	2213	O	GLY	283	41.999	8.113	4.428	1.00	19.94
	atom	2214	N	VAL	284	39.763	8.316	4.625	1.00	12.87
	atom	2215	CA	VAL	284	39.817	9.774	4.547	1.00	16.46
	atom	2216	CB	VAL	284	38.707	10.334	3.625	1.00	18.23
25	atom	2217	CG1	VAL	284	39.306	10.638	2.256	1.00	15.09
	atom	2218	CG2	VAL	284	37.548	9.344	3.526	1.00	15.13
	atom	2219	C	VAL	284	39.698	10.370	5.935	1.00	16.16
	atom	2220	O	VAL	284	39.365	9.654	6.873	1.00	21.25
30	atom	2221	N	LEU	285	39.976	11.662	6.085	1.00	14.54
	atom	2222	CA	LEU	285	39.925	12.283	7.419	1.00	18.17
	atom	2223	CB	LEU	285	40.591	13.671	7.397	1.00	11.77
	atom	2224	CG	LEU	285	40.737	14.212	8.834	1.00	14.87
35	atom	2225	CD1	LEU	285	41.712	13.349	9.575	1.00	11.35
	atom	2226	CD2	LEU	285	41.217	15.638	8.873	1.00	11.98
	atom	2227	C	LEU	285	38.514	12.438	8.003	1.00	18.78
	atom	2228	O	LEU	285	38.289	12.278	9.209	1.00	19.14

5	atom	2229	N	THR	286	37.579	12.769	7.122	1.00	16.92
	atom	2230	CA	THR	286	36.196	13.021	7.463	1.00	8.41
	atom	2231	CB	THR	286	35.523	13.887	6.360	1.00	11.85
	atom	2232	OG1	THR	286	35.864	13.329	5.089	1.00	11.25
	atom	2233	CG2	THR	286	35.980	15.366	6.408	1.00	3.47
	atom	2234	C	THR	286	35.373	11.752	7.600	1.00	8.58
	atom	2235	O	THR	286	34.179	11.830	7.885	1.00	6.30
	atom	2236	N	THR	287	35.974	10.578	7.437	1.00	9.98
10	atom	2237	CA	THR	287	35.132	9.384	7.502	1.00	14.51
	atom	2238	CB	THR	287	35.869	8.126	6.964	1.00	11.97
	atom	2239	OG1	THR	287	35.300	6.948	7.537	1.00	16.98
	atom	2240	CG2	THR	287	37.317	8.174	7.251	1.00	16.02
15	atom	2241	C	THR	287	34.472	9.109	8.858	1.00	14.94
	atom	2242	O	THR	287	33.288	8.733	8.922	1.00	17.04
	atom	2243	N	SER	288	35.214	9.323	9.937	1.00	15.88
	atom	2244	CA	SER	288	34.672	9.123	11.291	1.00	15.93
	atom	2245	CB	SER	288	35.797	9.242	12.319	1.00	14.91
	atom	2246	OG	SER	288	35.262	9.346	13.595	1.00	17.41
20	atom	2247	C	SER	288	33.593	10.172	11.602	1.00	13.04
	atom	2248	O	SER	288	32.439	9.844	11.871	1.00	12.73
	atom	2249	N	CYS	289	33.983	11.438	11.559	1.00	7.29
	atom	2250	CA	CYS	289	33.046	12.511	11.836	1.00	10.66
25	atom	2251	CB	CYS	289	33.793	13.851	11.834	1.00	5.96
	atom	2252	SG	CYS	289	32.783	15.279	11.493	1.00	22.59
	atom	2253	C	CYS	289	31.863	12.527	10.846	1.00	12.55
	atom	2254	O	CYS	289	30.734	12.875	11.212	1.00	14.62
	atom	2255	N	GLY	290	32.127	12.168	9.591	1.00	14.52
	atom	2256	CA	GLY	290	31.074	12.120	8.590	1.00	9.51
30	atom	2257	C	GLY	290	30.057	11.040	8.936	1.00	14.36
	atom	2258	O	GLY	290	28.852	11.313	9.001	1.00	13.85
	atom	2259	N	ASN	291	30.524	9.813	9.168	1.00	10.21
	atom	2260	CA	ASN	291	29.611	8.721	9.508	1.00	13.14
35	atom	2261	CB	ASN	291	30.372	7.399	9.663	1.00	12.39
	atom	2262	CG	ASN	291	30.742	6.787	8.343	1.00	16.70
	atom	2263	OD1	ASN	291	30.444	7.334	7.291	1.00	19.76
	atom	2264	ND2	ASN	291	31.398	5.645	8.388	1.00	14.60

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5	atom	2265	C	ASN	291	28.840	9.007	10.803	1.00	13.64
	atom	2266	O	ASN	291	27.672	8.669	10.912	1.00	16.48
	atom	2267	N	THR	292	29.498	9.615	11.787	1.00	13.64
	atom	2268	CA	THR	292	28.829	9.926	13.033	1.00	11.88
	atom	2269	CB	THR	292	29.814	10.420	14.092	1.00	11.39
	atom	2270	OG1	THR	292	30.878	9.460	14.247	1.00	9.50
	atom	2271	CG2	THR	292	29.099	10.572	15.406	1.00	2.48
	atom	2272	C	THR	292	27.731	10.956	12.834	1.00	12.72
10	atom	2273	O	THR	292	26.619	10.785	13.354	1.00	9.10
	atom	2274	N	LEU	293	28.030	11.997	12.060	1.00	7.16
	atom	2275	CA	LEU	293	27.045	13.036	11.767	1.00	10.97
	atom	2276	CB	LEU	293	27.704	14.195	11.018	1.00	8.15
	atom	2277	CG	LEU	293	28.403	15.187	11.956	1.00	18.61
15	atom	2278	CD1	LEU	293	29.564	15.857	11.252	1.00	14.67
	atom	2279	CD2	LEU	293	27.400	16.228	12.448	1.00	18.24
	atom	2280	C	LEU	293	25.879	12.498	10.927	1.00	11.98
	atom	2281	O	LEU	293	24.693	12.837	11.143	1.00	10.31
20	atom	2282	N	THR	294	26.218	11.644	9.973	1.00	9.34
	atom	2283	CA	THR	294	25.218	11.088	9.078	1.00	13.14
	atom	2284	CB	THR	294	25.932	10.501	7.830	1.00	17.76
	atom	2285	OG1	THR	294	26.584	11.576	7.136	1.00	9.54
	atom	2286	CG2	THR	294	24.952	9.770	6.888	1.00	13.10
	atom	2287	C	THR	294	24.325	10.051	9.775	1.00	13.78
	atom	2288	O	THR	294	23.103	10.068	9.612	1.00	12.50
25	atom	2289	N	CYS	295	24.927	9.183	10.586	1.00	12.96
	atom	2290	CA	CYS	295	24.158	8.164	11.297	1.00	15.53
	atom	2291	CB	CYS	295	25.083	7.216	12.054	1.00	14.80
	atom	2292	SG	CYS	295	24.228	5.909	12.939	1.00	21.83
30	atom	2293	C	CYS	295	23.237	8.852	12.279	1.00	15.64
	atom	2294	O	CYS	295	22.123	8.424	12.506	1.00	19.96
	atom	2295	N	TYR	296	23.714	9.945	12.846	1.00	16.53
	atom	2296	CA	TYR	296	22.944	10.688	13.808	1.00	13.09
35	atom	2297	CB	TYR	296	23.831	11.751	14.460	1.00	19.53
	atom	2298	CG	TYR	296	23.101	12.750	15.335	1.00	23.83
	atom	2299	CD1	TYR	296	22.977	12.549	16.705	1.00	20.52
	atom	2300	CE1	TYR	296	22.251	13.432	17.495	1.00	23.16

5	atom	2301	CD2	TYR	296	22.485	13.865	14.774	1.00	22.40
	atom	2302	CE2	TYR	296	21.763	14.742	15.543	1.00	25.16
	atom	2303	CZ	TYR	296	21.639	14.525	16.901	1.00	26.73
	atom	2304	OH	TYR	296	20.878	15.398	17.644	1.00	29.21
	atom	2305	C	TYR	296	21.727	11.326	13.175	1.00	13.13
	atom	2306	O	TYR	296	20.627	11.241	13.705	1.00	19.26
	atom	2307	N	LEU	297	21.930	11.965	12.037	1.00	15.33
	atom	2308	CA	LEU	297	20.861	12.651	11.329	1.00	8.06
10	atom	2309	CB	LEU	297	21.478	13.414	10.167	1.00	4.00
	atom	2310	CG	LEU	297	20.657	13.832	8.973	1.00	5.36
	atom	2311	CD1	LEU	297	19.567	14.751	9.449	1.00	2.30
	atom	2312	CD2	LEU	297	21.600	14.508	7.935	1.00	2.00
15	atom	2313	C	LEU	297	19.795	11.679	10.854	1.00	10.56
	atom	2314	O	LEU	297	18.602	11.927	10.989	1.00	8.08
	atom	2315	N	LYS	298	20.224	10.554	10.306	1.00	9.28
	atom	2316	CA	LYS	298	19.259	9.584	9.843	1.00	14.54
	atom	2317	CB	LYS	298	19.959	8.524	8.975	1.00	14.39
	atom	2318	CG	LYS	298	20.284	9.041	7.564	1.00	14.80
	atom	2319	CD	LYS	298	21.047	8.018	6.741	1.00	9.15
20	atom	2320	CE	LYS	298	21.993	8.691	5.772	1.00	6.39
	atom	2321	NZ	LYS	298	22.398	7.721	4.710	1.00	12.57
	atom	2322	C	LYS	298	18.526	8.926	11.022	1.00	17.93
	atom	2323	O	LYS	298	17.302	8.706	10.976	1.00	14.55
	atom	2324	N	ALA	299	19.275	8.622	12.081	1.00	13.25
25	atom	2325	CA	ALA	299	18.682	7.971	13.224	1.00	13.80
	atom	2326	CB	ALA	299	19.760	7.440	14.140	1.00	11.84
	atom	2327	C	ALA	299	17.746	8.923	13.968	1.00	18.33
30	atom	2328	O	ALA	299	16.701	8.507	14.476	1.00	17.79
	atom	2329	N	SER	300	18.098	10.203	14.005	1.00	18.37
	atom	2330	CA	SER	300	17.250	11.173	14.693	1.00	19.72
	atom	2331	CB	SER	300	17.917	12.537	14.736	1.00	15.36
	atom	2332	OG	SER	300	18.855	12.587	15.777	1.00	20.47
	atom	2333	C	SER	300	15.917	11.296	13.973	1.00	17.03
	atom	2334	O	SER	300	14.853	11.152	14.579	1.00	15.98
35	atom	2335	N	ALA	301	15.997	11.565	12.673	1.00	16.11
	atom	2336	CA	ALA	301	14.818	11.703	11.831	1.00	12.11

	atom	2337	CB	ALA	301	15.234	12.062	10.399	1.00	14.67
	atom	2338	C	ALA	301	14.048	10.394	11.859	1.00	5.18
	atom	2339	O	ALA	301	12.829	10.375	11.892	1.00	7.90
	atom	2340	N	ALA	302	14.762	9.285	11.869	1.00	8.95
5	atom	2341	CA	ALA	302	14.083	7.997	11.923	1.00	10.58
	atom	2342	CB	ALA	302	15.068	6.887	11.656	1.00	2.00
	atom	2343	C	ALA	302	13.351	7.764	13.276	1.00	14.11
	atom	2344	O	ALA	302	12.315	7.102	13.310	1.00	9.62
	atom	2345	N	CYS	303	13.885	8.308	14.373	1.00	18.06
10	atom	2346	CA	CYS	303	13.263	8.163	15.705	1.00	23.37
	atom	2347	CB	CYS	303	14.190	8.725	16.803	1.00	21.74
	atom	2348	SG	CYS	303	15.531	7.631	17.351	1.00	27.25
	atom	2349	C	CYS	303	11.917	8.925	15.742	1.00	26.18
	atom	2350	O	CYS	303	10.903	8.446	16.285	1.00	23.74
15	atom	2351	N	ARG	304	11.929	10.122	15.161	1.00	22.67
	atom	2352	CA	ARG	304	10.747	10.940	15.097	1.00	22.19
	atom	2353	CB	ARG	304	11.099	12.306	14.503	1.00	25.32
	atom	2354	CG	ARG	304	12.197	13.063	15.254	1.00	16.91
	atom	2355	CD	ARG	304	12.192	14.548	14.889	1.00	15.19
20	atom	2356	NE	ARG	304	13.299	15.295	15.499	1.00	19.62
	atom	2357	CZ	ARG	304	13.467	16.616	15.392	1.00	22.51
	atom	2358	NH1	ARG	304	12.595	17.339	14.690	1.00	23.10
	atom	2359	NH2	ARG	304	14.483	17.228	16.012	1.00	11.90
	atom	2360	C	ARG	304	9.677	10.226	14.256	1.00	26.83
25	atom	2361	O	ARG	304	8.476	10.394	14.489	1.00	25.97
	atom	2362	N	ALA	305	10.106	9.419	13.290	1.00	30.84
	atom	2363	CA	ALA	305	9.158	8.683	12.449	1.00	34.55
	atom	2364	CB	ALA	305	9.898	7.809	11.444	1.00	35.65
	atom	2365	C	ALA	305	8.225	7.821	13.299	1.00	37.13
30	atom	2366	O	ALA	305	7.190	7.358	12.815	1.00	37.73
	atom	2367	N	ALA	306	8.592	7.610	14.562	1.00	38.22
	atom	2368	CA	ALA	306	7.762	6.824	15.474	1.00	36.67
	atom	2369	CB	ALA	306	8.310	5.422	15.583	1.00	35.11
	atom	2370	C	ALA	306	7.692	7.468	16.860	1.00	38.80
35	atom	2371	O	ALA	306	6.844	8.320	17.132	1.00	38.28
	atom	2372	N	LYS	307	8.608	7.040	17.720	1.00	41.45

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5	atom	2373	CA	LYS	307	8.740	7.491	19.096	1.00	42.81
	atom	2374	CB	LYS	307	10.214	7.458	19.503	1.00	40.40
	atom	2375	CG	LYS	307	10.729	6.087	19.916	1.00	37.86
	atom	2376	CD	LYS	307	10.575	5.048	18.831	1.00	37.54
	atom	2377	CE	LYS	307	11.918	4.432	18.481	1.00	37.85
	atom	2378	NZ	LYS	307	12.924	5.507	18.258	1.00	35.80
	atom	2379	C	LYS	307	8.167	8.865	19.449	1.00	49.66
	atom	2380	O	LYS	307	8.788	9.907	19.188	1.00	46.97
10	atom	2381	N	LEU	308	6.982	8.842	20.066	1.00	51.53
	atom	2382	CA	LEU	308	6.279	10.039	20.524	1.00	51.53
	atom	2383	CB	LEU	308	4.758	9.842	20.389	1.00	52.02
	atom	2384	CG	LEU	308	4.157	8.437	20.605	1.00	51.76
15	atom	2385	CD1	LEU	308	3.708	8.288	22.068	1.00	47.91
	atom	2386	CD2	LEU	308	2.983	8.206	19.643	1.00	43.18
	atom	2387	C	LEU	308	6.663	10.183	21.998	1.00	54.77
	atom	2388	O	LEU	308	5.997	10.874	22.786	1.00	57.44
20	atom	2389	N	GLN	309	7.766	9.517	22.338	1.00	56.72
	atom	2390	CA	GLN	309	8.312	9.459	23.693	1.00	53.19
	atom	2391	CB	GLN	309	8.499	8.002	24.077	1.00	52.08
	atom	2392	CG	GLN	309	9.172	7.229	22.970	1.00	47.86
	atom	2393	CD	GLN	309	8.527	5.897	22.742	1.00	48.89
	atom	2394	OD1	GLN	309	8.830	5.208	21.775	1.00	51.59
	atom	2395	NE2	GLN	309	7.627	5.513	23.642	1.00	55.53
	atom	2396	C	GLN	309	9.645	10.190	23.888	1.00	52.39
25	atom	2397	O	GLN	309	9.840	11.303	23.383	1.00	53.77
	atom	2398	N	ASP	310	10.573	9.545	24.599	1.00	46.73
30	atom	2399	CA	ASP	310	11.850	10.182	24.914	1.00	46.17
	atom	2400	CB	ASP	310	11.877	10.525	26.404	1.00	50.62
	atom	2401	CG	ASP	310	10.471	10.620	27.000	1.00	54.61
	atom	2402	OD1	ASP	310	9.975	9.590	27.507	1.00	57.26
	atom	2403	OD2	ASP	310	9.857	11.716	26.954	1.00	52.46
	atom	2404	C	ASP	310	13.081	9.382	24.538	1.00	43.56
	atom	2405	O	ASP	310	13.580	8.537	25.297	1.00	34.86
	atom	2406	N	CYS	311	13.571	9.683	23.342	1.00	41.82
35	atom	2407	CA	CYS	311	14.726	9.016	22.783	1.00	36.02
	atom	2408	CB	CYS	311	14.703	9.126	21.269	1.00	35.10

	atom	2409	SG	CYS	311	13.643	7.931	20.531	1.00	41.50
	atom	2410	C	CYS	311	16.001	9.612	23.292	1.00	32.40
	atom	2411	O	CYS	311	16.050	10.780	23.655	1.00	32.96
	atom	2412	N	THR	312	17.032	8.783	23.335	1.00	29.68
5	atom	2413	CA	THR	312	18.348	9.221	23.757	1.00	24.81
	atom	2414	CB	THR	312	18.551	9.120	25.297	1.00	23.09
	atom	2415	OG1	THR	312	17.974	10.268	25.917	1.00	20.96
	atom	2416	CG2	THR	312	20.039	9.103	25.647	1.00	7.30
	atom	2417	C	THR	312	19.286	8.291	23.048	1.00	19.93
10	atom	2418	O	THR	312	19.215	7.071	23.208	1.00	21.00
	atom	2419	N	MET	313	20.146	8.863	22.225	1.00	21.26
	atom	2420	CA	MET	313	21.087	8.039	21.502	1.00	19.10
	atom	2421	CB	MET	313	20.845	8.108	20.003	1.00	27.05
	atom	2422	CG	MET	313	20.425	9.437	19.460	1.00	32.49
15	atom	2423	SD	MET	313	19.755	9.147	17.816	1.00	41.09
	atom	2424	CE	MET	313	18.946	7.570	18.055	1.00	41.67
	atom	2425	C	MET	313	22.522	8.371	21.775	1.00	15.03
	atom	2426	O	MET	313	22.862	9.456	22.237	1.00	9.15
	atom	2427	N	LEU	314	23.360	7.394	21.477	1.00	14.59
20	atom	2428	CA	LEU	314	24.786	7.512	21.649	1.00	13.18
	atom	2429	CB	LEU	314	25.237	6.561	22.753	1.00	16.64
	atom	2430	CG	LEU	314	26.661	6.691	23.270	1.00	12.33
	atom	2431	CD1	LEU	314	26.848	8.047	23.960	1.00	17.77
	atom	2432	CD2	LEU	314	26.894	5.591	24.223	1.00	12.90
25	atom	2433	C	LEU	314	25.239	7.028	20.299	1.00	14.13
	atom	2434	O	LEU	314	24.850	5.949	19.880	1.00	14.97
	atom	2435	N	VAL	315	26.035	7.834	19.611	1.00	14.46
	atom	2436	CA	VAL	315	26.490	7.507	18.260	1.00	8.47
	atom	2437	CB	VAL	315	25.917	8.539	17.235	1.00	9.94
30	atom	2438	CG1	VAL	315	26.126	8.042	15.792	1.00	6.93
	atom	2439	CG2	VAL	315	24.448	8.787	17.529	1.00	7.37
	atom	2440	C	VAL	315	28.000	7.504	18.113	1.00	8.16
	atom	2441	O	VAL	315	28.666	8.471	18.449	1.00	11.71
	atom	2442	N	ASN	316	28.534	6.416	17.597	1.00	13.18
35	atom	2443	CA	ASN	316	29.976	6.296	17.363	1.00	16.47
	atom	2444	CB	ASN	316	30.589	5.250	18.304	1.00	20.03

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5	atom	2445	CG	ASN	316	30.712	5.740	19.732	1.00	18.37
	atom	2446	OD1	ASN	316	31.819	5.855	20.260	1.00	24.84
	atom	2447	ND2	ASN	316	29.581	6.024	20.364	1.00	11.13
	atom	2448	C	ASN	316	30.130	5.846	15.898	1.00	15.78
	atom	2449	O	ASN	316	30.014	4.652	15.596	1.00	12.76
	atom	2450	N	GLY	317	30.383	6.805	15.002	1.00	15.43
	atom	2451	CA	GLY	317	30.492	6.486	13.587	1.00	16.63
	atom	2452	C	GLY	317	29.186	5.824	13.155	1.00	19.29
10	atom	2453	O	GLY	317	28.119	6.441	13.232	1.00	13.28
	atom	2454	N	ASP	318	29.262	4.558	12.736	1.00	20.60
	atom	2455	CA	ASP	318	28.080	3.798	12.313	1.00	22.17
	atom	2456	CB	ASP	318	28.486	2.767	11.281	1.00	23.30
15	atom	2457	CG	ASP	318	29.724	2.027	11.684	1.00	25.41
	atom	2458	OD1	ASP	318	30.744	2.692	11.980	1.00	27.38
	atom	2459	OD2	ASP	318	29.676	0.788	11.710	1.00	25.90
	atom	2460	C	ASP	318	27.403	3.067	13.479	1.00	24.22
	atom	2461	O	ASP	318	26.245	2.626	13.380	1.00	20.11
	atom	2462	N	ASP	319	28.135	2.899	14.574	1.00	25.94
20	atom	2463	CA	ASP	319	27.559	2.217	15.730	1.00	26.01
	atom	2464	CB	ASP	319	28.654	1.768	16.680	1.00	26.27
	atom	2465	CG	ASP	319	28.826	0.275	16.677	1.00	29.65
	atom	2466	OD1	ASP	319	29.973	-0.184	16.521	1.00	35.30
	atom	2467	OD2	ASP	319	27.813	-0.439	16.828	1.00	30.47
	atom	2468	C	ASP	319	26.552	3.110	16.452	1.00	20.07
25	atom	2469	O	ASP	319	26.826	4.269	16.766	1.00	15.33
	atom	2470	N	LEU	320	25.376	2.567	16.697	1.00	16.66
	atom	2471	CA	LEU	320	24.341	3.341	17.350	1.00	17.93
30	atom	2472	CB	LEU	320	23.428	3.994	16.294	1.00	14.80
	atom	2473	CG	LEU	320	22.126	4.657	16.786	1.00	12.07
	atom	2474	CD1	LEU	320	22.214	6.175	16.732	1.00	12.14
	atom	2475	CD2	LEU	320	20.993	4.180	15.980	1.00	14.40
	atom	2476	C	LEU	320	23.484	2.538	18.314	1.00	18.43
	atom	2477	O	LEU	320	23.097	1.410	18.042	1.00	23.21
	atom	2478	N	VAL	321	23.211	3.135	19.460	1.00	18.50
35	atom	2479	CA	VAL	321	22.327	2.539	20.441	1.00	21.88
	atom	2480	CB	VAL	321	23.097	1.966	21.662	1.00	20.42

5	atom	2481	CG1	VAL	321	24.196	2.895	22.062	1.00	17.51
	atom	2482	CG2	VAL	321	22.136	1.735	22.817	1.00	22.27
	atom	2483	C	VAL	321	21.413	3.683	20.878	1.00	20.73
	atom	2484	O	VAL	321	21.826	4.844	20.897	1.00	21.92
	atom	2485	N	VAL	322	20.162	3.371	21.181	1.00	22.82
	atom	2486	CA	VAL	322	19.230	4.400	21.623	1.00	20.84
	atom	2487	CB	VAL	322	18.343	4.957	20.448	1.00	18.24
	atom	2488	CG1	VAL	322	18.628	4.215	19.149	1.00	22.10
	atom	2489	CG2	VAL	322	16.880	4.885	20.810	1.00	6.40
10	atom	2490	C	VAL	322	18.353	3.819	22.714	1.00	23.90
	atom	2491	O	VAL	322	17.873	2.685	22.608	1.00	22.28
	atom	2492	N	ILE	323	18.176	4.585	23.786	1.00	24.77
	atom	2493	CA	ILE	323	17.349	4.134	24.893	1.00	25.24
15	atom	2494	CB	ILE	323	18.158	4.137	26.190	1.00	22.50
	atom	2495	CG2	ILE	323	17.259	3.829	27.384	1.00	23.14
	atom	2496	CG1	ILE	323	19.261	3.095	26.066	1.00	16.23
	atom	2497	CD1	ILE	323	20.397	3.297	27.008	1.00	15.90
	atom	2498	C	ILE	323	16.131	5.042	24.994	1.00	25.29
	atom	2499	O	ILE	323	16.254	6.266	25.033	1.00	25.71
20	atom	2500	N	CYS	324	14.955	4.434	25.021	1.00	23.65
	atom	2501	CA	CYS	324	13.719	5.201	25.074	1.00	28.54
	atom	2502	CB	CYS	324	13.120	5.298	23.668	1.00	22.91
	atom	2503	SG	CYS	324	12.651	3.689	23.036	1.00	24.99
	atom	2504	C	CYS	324	12.698	4.560	26.004	1.00	32.49
25	atom	2505	O	CYS	324	12.954	3.502	26.611	1.00	36.12
	atom	2506	N	GLU	325	11.541	5.212	26.117	1.00	34.49
	atom	2507	CA	GLU	325	10.454	4.697	26.942	1.00	34.97
	atom	2508	CB	GLU	325	9.367	5.759	27.101	1.00	33.51
	atom	2509	CG	GLU	325	9.577	6.705	28.273	1.00	39.83
30	atom	2510	CD	GLU	325	10.005	6.005	29.565	1.00	40.86
	atom	2511	OE1	GLU	325	9.637	4.828	29.786	1.00	41.53
	atom	2512	OE2	GLU	325	10.716	6.644	30.367	1.00	41.72
	atom	2513	C	GLU	325	9.863	3.470	26.243	1.00	33.00
35	atom	2514	O	GLU	325	10.045	3.291	25.038	1.00	33.16
	atom	2515	N	SER	326	9.177	2.608	26.981	1.00	29.74
	atom	2516	CA	SER	326	8.566	1.462	26.332	1.00	27.88

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	atom	2517	CB	SER	326	8.895	0.154	27.045	1.00	29.60
	atom	2518	OG	SER	326	8.592	-0.968	26.221	1.00	27.55
	atom	2519	C	SER	326	7.082	1.687	26.359	1.00	29.75
	atom	2520	O	SER	326	6.580	2.500	27.130	1.00	26.24
5	atom	2521	N	ALA	327	6.382	0.983	25.483	1.00	33.65
	atom	2522	CA	ALA	327	4.937	1.093	25.404	1.00	32.64
	atom	2523	CB	ALA	327	4.533	1.949	24.224	1.00	35.74
	atom	2524	C	ALA	327	4.455	-0.314	25.212	1.00	35.26
	atom	2525	O	ALA	327	3.405	-0.541	24.613	1.00	36.42
10	atom	2526	N	GLY	328	5.250	-1.259	25.715	1.00	35.74
	atom	2527	CA	GLY	328	4.906	-2.658	25.604	1.00	35.12
	atom	2528	C	GLY	328	5.739	-3.370	24.563	1.00	37.03
	atom	2529	O	GLY	328	6.267	-2.751	23.648	1.00	39.73
	atom	2530	N	THR	329	5.828	-4.686	24.705	1.00	35.68
15	atom	2531	CA	THR	329	6.592	-5.553	23.816	1.00	35.67
	atom	2532	CB	THR	329	6.517	-6.994	24.334	1.00	31.01
	atom	2533	OG1	THR	329	6.992	-7.020	25.679	1.00	30.45
	atom	2534	CG2	THR	329	7.348	-7.935	23.486	1.00	35.07
	atom	2535	C	THR	329	6.188	-5.555	22.338	1.00	41.30
20	atom	2536	O	THR	329	6.985	-5.217	21.459	1.00	42.33
	atom	2537	N	GLN	330	4.954	-5.964	22.068	1.00	45.00
	atom	2538	CA	GLN	330	4.464	-6.047	20.705	1.00	45.98
	atom	2539	CB	GLN	330	3.072	-6.675	20.703	1.00	50.57
	atom	2540	CG	GLN	330	2.859	-7.708	19.613	1.00	53.88
25	atom	2541	CD	GLN	330	1.764	-8.697	19.954	1.00	55.97
	atom	2542	OE1	GLN	330	2.015	-9.713	20.598	1.00	58.15
	atom	2543	NE2	GLN	330	0.541	-8.404	19.524	1.00	58.64
	atom	2544	C	GLN	330	4.417	-4.690	20.017	1.00	46.57
	atom	2545	O	GLN	330	4.625	-4.588	18.809	1.00	45.26
30	atom	2546	N	GLU	331	4.138	-3.648	20.785	1.00	42.44
	atom	2547	CA	GLU	331	4.054	-2.318	20.216	1.00	42.19
	atom	2548	CB	GLU	331	3.307	-1.414	21.193	1.00	45.19
	atom	2549	CG	GLU	331	2.738	-2.173	22.420	1.00	53.99
	atom	2550	CD	GLU	331	1.499	-3.035	22.106	1.00	61.39
35	atom	2551	OE1	GLU	331	1.620	-4.022	21.340	1.00	62.11
	atom	2552	OE2	GLU	331	0.401	-2.733	22.631	1.00	60.82

	atom	2553	C	GLU	331	5.468	-1.807	19.926	1.00	42.42
	atom	2554	O	GLU	331	5.746	-1.304	18.838	1.00	41.63
	atom	2555	N	ASP	332	6.361	-1.970	20.899	1.00	40.40
	atom	2556	CA	ASP	332	7.759	-1.554	20.779	1.00	39.72
5	atom	2557	CB	ASP	332	8.522	-1.903	22.066	1.00	43.46
	atom	2558	CG	ASP	332	8.576	-0.750	23.070	1.00	44.40
	atom	2559	OD1	ASP	332	9.624	-0.613	23.737	1.00	50.21
	atom	2560	OD2	ASP	332	7.587	0.005	23.214	1.00	42.70
	atom	2561	C	ASP	332	8.455	-2.238	19.587	1.00	38.03
10	atom	2562	O	ASP	332	9.360	-1.669	18.973	1.00	35.13
	atom	2563	N	ALA	333	8.036	-3.463	19.274	1.00	35.59
	atom	2564	CA	ALA	333	8.606	-4.223	18.157	1.00	34.66
	atom	2565	CB	ALA	333	8.080	-5.660	18.188	1.00	28.59
	atom	2566	C	ALA	333	8.250	-3.559	16.818	1.00	35.39
15	atom	2567	O	ALA	333	9.096	-3.397	15.918	1.00	32.47
	atom	2568	N	ALA	334	6.980	-3.194	16.701	1.00	32.90
	atom	2569	CA	ALA	334	6.475	-2.528	15.522	1.00	35.01
	atom	2570	CB	ALA	334	4.958	-2.387	15.614	1.00	30.49
	atom	2571	C	ALA	334	7.132	-1.151	15.441	1.00	36.42
20	atom	2572	O	ALA	334	7.257	-0.580	14.360	1.00	38.09
	atom	2573	N	SER	335	7.554	-0.622	16.588	1.00	35.49
	atom	2574	CA	SER	335	8.197	0.685	16.624	1.00	33.47
	atom	2575	CB	SER	335	8.376	1.156	18.066	1.00	35.80
	atom	2576	OG	SER	335	7.166	1.715	18.558	1.00	44.77
25	atom	2577	C	SER	335	9.549	0.611	15.937	1.00	33.00
	atom	2578	O	SER	335	9.923	1.509	15.186	1.00	31.79
	atom	2579	N	LEU	336	10.278	-0.468	16.193	1.00	30.58
	atom	2580	CA	LEU	336	11.580	-0.643	15.580	1.00	32.25
	atom	2581	CB	LEU	336	12.355	-1.740	16.300	1.00	33.78
30	atom	2582	CG	LEU	336	13.103	-1.268	17.549	1.00	32.01
	atom	2583	CD1	LEU	336	12.219	-0.378	18.402	1.00	19.15
	atom	2584	CD2	LEU	336	13.556	-2.491	18.319	1.00	32.33
	atom	2585	C	LEU	336	11.397	-0.989	14.111	1.00	33.05
	atom	2586	O	LEU	336	12.301	-0.798	13.298	1.00	32.54
35	atom	2587	N	ARG	337	10.212	-1.500	13.785	1.00	34.57
	atom	2588	CA	ARG	337	9.861	-1.840	12.415	1.00	33.94

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	atom	2589	CB	ARG	337	8.481	-2.502	12.376	1.00	40.01
	atom	2590	CG	ARG	337	8.468	-3.887	11.748	1.00	50.31
	atom	2591	CD	ARG	337	7.152	-4.156	11.006	1.00	60.06
	atom	2592	NE	ARG	337	7.349	-4.414	9.573	1.00	64.64
5	atom	2593	CZ	ARG	337	6.370	-4.443	8.666	1.00	66.06
	atom	2594	NH1	ARG	337	5.108	-4.228	9.027	1.00	65.93
	atom	2595	NH2	ARG	337	6.653	-4.693	7.392	1.00	63.83
	atom	2596	C	ARG	337	9.833	-0.524	11.628	1.00	31.50
	atom	2597	O	ARG	337	10.527	-0.367	10.614	1.00	30.22
10	atom	2598	N	VAL	338	9.034	0.426	12.104	1.00	25.96
	atom	2599	CA	VAL	338	8.942	1.725	11.446	1.00	23.74
	atom	2600	CB	VAL	338	8.008	2.682	12.212	1.00	20.53
	atom	2601	CG1	VAL	338	7.954	4.005	11.504	1.00	16.58
	atom	2602	CG2	VAL	338	6.586	2.080	12.323	1.00	23.01
15	atom	2603	C	VAL	338	10.321	2.375	11.393	1.00	25.39
	atom	2604	O	VAL	338	10.760	2.853	10.348	1.00	25.50
	atom	2605	N	PHE	339	11.008	2.372	12.534	1.00	24.65
	atom	2606	CA	PHE	339	12.323	2.985	12.643	1.00	19.60
	atom	2607	CB	PHE	339	12.934	2.698	14.018	1.00	15.60
20	atom	2608	CG	PHE	339	14.325	3.191	14.164	1.00	3.47
	atom	2609	CD1	PHE	339	14.569	4.487	14.582	1.00	9.45
	atom	2610	CD2	PHE	339	15.390	2.374	13.849	1.00	4.97
	atom	2611	CE1	PHE	339	15.859	4.965	14.685	1.00	5.74
	atom	2612	CE2	PHE	339	16.685	2.830	13.941	1.00	3.08
25	atom	2613	CZ	PHE	339	16.927	4.126	14.360	1.00	5.97
	atom	2614	C	PHE	339	13.232	2.480	11.534	1.00	18.70
	atom	2615	O	PHE	339	13.866	3.267	10.845	1.00	12.55
	atom	2616	N	THR	340	13.282	1.164	11.381	1.00	20.16
	atom	2617	CA	THR	340	14.077	0.510	10.341	1.00	23.32
30	atom	2618	CB	THR	340	13.934	-1.028	10.463	1.00	23.80
	atom	2619	OG1	THR	340	14.663	-1.472	11.616	1.00	26.76
	atom	2620	CG2	THR	340	14.441	-1.740	9.182	1.00	14.19
	atom	2621	C	THR	340	13.618	0.947	8.925	1.00	21.79
	atom	2622	O	THR	340	14.432	1.172	8.031	1.00	21.76
35	atom	2623	N	GLU	341	12.308	1.053	8.731	1.00	18.62
	atom	2624	CA	GLU	341	11.766	1.482	7.446	1.00	20.97

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5	atom	2625	CB	GLU	341	10.242	1.518	7.477	1.00	18.92
	atom	2626	CG	GLU	341	9.568	0.369	6.799	1.00	27.50
	atom	2627	CD	GLU	341	8.219	0.080	7.416	1.00	32.36
	atom	2628	OE1	GLU	341	8.195	-0.569	8.481	1.00	33.70
	atom	2629	OE2	GLU	341	7.187	0.507	6.846	1.00	36.79
	atom	2630	C	GLU	341	12.259	2.878	7.081	1.00	18.52
	atom	2631	O	GLU	341	12.616	3.117	5.943	1.00	16.55
	atom	2632	N	ALA	342	12.248	3.801	8.042	1.00	15.66
10	atom	2633	CA	ALA	342	12.703	5.147	7.760	1.00	11.85
	atom	2634	CB	ALA	342	12.420	6.075	8.949	1.00	5.98
	atom	2635	C	ALA	342	14.192	5.089	7.451	1.00	13.06
	atom	2636	O	ALA	342	14.630	5.655	6.466	1.00	17.39
15	atom	2637	N	MET	343	14.958	4.378	8.279	1.00	14.83
	atom	2638	CA	MET	343	16.401	4.240	8.096	1.00	15.43
	atom	2639	CB	MET	343	17.005	3.288	9.152	1.00	17.16
	atom	2640	CG	MET	343	17.219	3.903	10.544	1.00	14.16
20	atom	2641	SD	MET	343	18.366	5.309	10.607	1.00	15.78
	atom	2642	CE	MET	343	19.905	4.462	10.694	1.00	8.77
	atom	2643	C	MET	343	16.729	3.717	6.686	1.00	20.04
	atom	2644	O	MET	343	17.685	4.188	6.066	1.00	22.60
	atom	2645	N	THR	344	15.952	2.748	6.196	1.00	15.69
	atom	2646	CA	THR	344	16.158	2.191	4.859	1.00	17.93
	atom	2647	CB	THR	344	15.265	0.945	4.622	1.00	19.23
	atom	2648	OG1	THR	344	15.461	0.013	5.680	1.00	16.90
25	atom	2649	CG2	THR	344	15.626	0.265	3.313	1.00	23.01
	atom	2650	C	THR	344	15.841	3.233	3.767	1.00	16.50
30	atom	2651	O	THR	344	16.473	3.258	2.708	1.00	14.88
	atom	2652	N	ARG	345	14.857	4.086	4.028	1.00	12.81
	atom	2653	CA	ARG	345	14.483	5.130	3.075	1.00	12.96
	atom	2654	CB	ARG	345	13.256	5.890	3.558	1.00	12.13
	atom	2655	CG	ARG	345	12.127	5.933	2.572	1.00	24.12
	atom	2656	CD	ARG	345	10.831	5.426	3.174	1.00	19.46
	atom	2657	NE	ARG	345	10.495	6.121	4.416	1.00	22.42
	atom	2658	CZ	ARG	345	9.921	5.523	5.455	1.00	23.15
35	atom	2659	NH1	ARG	345	9.615	4.230	5.387	1.00	22.49
	atom	2660	NH2	ARG	345	9.642	6.211	6.553	1.00	22.68

5	atom	2661	C	ARG	345	15.628	6.110	2.972	1.00	11.64
	atom	2662	O	ARG	345	15.861	6.699	1.939	1.00	15.57
	atom	2663	N	TYR	346	16.344	6.285	4.073	1.00	16.09
	atom	2664	CA	TYR	346	17.452	7.219	4.117	1.00	10.12
	atom	2665	CB	TYR	346	17.673	7.718	5.537	1.00	10.24
	atom	2666	CG	TYR	346	16.491	8.434	6.161	1.00	8.55
	atom	2667	CD1	TYR	346	16.356	8.477	7.546	1.00	2.00
	atom	2668	CE1	TYR	346	15.341	9.215	8.159	1.00	7.85
10	atom	2669	CD2	TYR	346	15.566	9.149	5.378	1.00	3.32
	atom	2670	CE2	TYR	346	14.532	9.900	5.980	1.00	4.00
	atom	2671	CZ	TYR	346	14.434	9.921	7.377	1.00	11.88
	atom	2672	OH	TYR	346	13.415	10.589	8.011	1.00	16.58
15	atom	2673	C	TYR	346	18.688	6.530	3.649	1.00	10.73
	atom	2674	O	TYR	346	19.759	7.131	3.648	1.00	14.56
	atom	2675	N	SER	347	18.544	5.262	3.263	1.00	8.88
	atom	2676	CA	SER	347	19.682	4.485	2.779	1.00	11.02
	atom	2677	CB	SER	347	20.436	5.257	1.719	1.00	7.10
	atom	2678	OG	SER	347	21.677	4.649	1.524	1.00	15.91
	atom	2679	C	SER	347	20.655	4.127	3.891	1.00	17.57
	atom	2680	O	SER	347	21.824	4.535	3.894	1.00	16.67
20	atom	2681	N	ALA	348	20.139	3.374	4.850	1.00	21.53
	atom	2682	CA	ALA	348	20.901	2.902	5.984	1.00	16.82
	atom	2683	CB	ALA	348	20.931	3.942	7.063	1.00	19.61
	atom	2684	C	ALA	348	20.129	1.676	6.436	1.00	17.95
	atom	2685	O	ALA	348	19.612	1.636	7.541	1.00	19.35
	atom	2686	N	PRO	349	20.019	0.666	5.558	1.00	17.48
	atom	2687	CD	PRO	349	20.619	0.634	4.218	1.00	17.13
	atom	2688	CA	PRO	349	19.309	-0.585	5.845	1.00	22.29
30	atom	2689	CB	PRO	349	19.249	-1.270	4.485	1.00	18.68
	atom	2690	CG	PRO	349	20.508	-0.822	3.840	1.00	18.33
	atom	2691	C	PRO	349	20.107	-1.390	6.883	1.00	22.65
	atom	2692	O	PRO	349	21.327	-1.266	6.976	1.00	22.99
35	atom	2693	N	PRO	350	19.433	-2.257	7.640	1.00	25.69
	atom	2694	CD	PRO	350	17.999	-2.613	7.620	1.00	28.35
	atom	2695	CA	PRO	350	20.147	-3.026	8.656	1.00	29.11
	atom	2696	CB	PRO	350	19.093	-3.186	9.747	1.00	23.51

	atom	2697	CG	PRO	350	17.818	-3.395	8.940	1.00	21.77
	atom	2698	C	PRO	350	20.721	-4.376	8.241	1.00	33.76
	atom	2699	O	PRO	350	20.133	-5.090	7.431	1.00	35.09
	atom	2700	N	GLY	351	21.874	-4.718	8.815	1.00	38.72
5	atom	2701	CA	GLY	351	22.476	-6.010	8.549	1.00	42.12
	atom	2702	C	GLY	351	21.610	-7.000	9.315	1.00	45.61
	atom	2703	O	GLY	351	21.067	-7.954	8.743	1.00	47.44
	atom	2704	N	ASP	352	21.483	-6.752	10.621	1.00	44.23
	atom	2705	CA	ASP	352	20.660	-7.564	11.519	1.00	41.08
10	atom	2706	CB	ASP	352	21.451	-7.984	12.764	1.00	43.20
	atom	2707	CG	ASP	352	22.665	-8.844	12.434	1.00	47.05
	atom	2708	OD1	ASP	352	22.475	-10.011	12.015	1.00	49.57
	atom	2709	OD2	ASP	352	23.809	-8.358	12.599	1.00	43.57
	atom	2710	C	ASP	352	19.544	-6.618	11.929	1.00	35.01
15	atom	2711	O	ASP	352	19.787	-5.445	12.194	1.00	36.47
	atom	2712	N	PRO	353	18.304	-7.100	11.969	1.00	31.96
	atom	2713	CD	PRO	353	17.786	-8.437	11.653	1.00	33.23
	atom	2714	CA	PRO	353	17.238	-6.177	12.363	1.00	32.72
	atom	2715	CB	PRO	353	15.961	-7.010	12.218	1.00	30.87
20	atom	2716	CG	PRO	353	16.352	-8.150	11.317	1.00	33.49
	atom	2717	C	PRO	353	17.426	-5.659	13.778	1.00	29.30
	atom	2718	O	PRO	353	18.168	-6.231	14.563	1.00	31.98
	atom	2719	N	PRO	354	16.808	-4.526	14.103	1.00	26.36
	atom	2720	CD	PRO	354	15.998	-3.614	13.280	1.00	25.22
25	atom	2721	CA	PRO	354	16.977	-4.037	15.472	1.00	25.21
	atom	2722	CB	PRO	354	16.557	-2.581	15.380	1.00	23.85
	atom	2723	CG	PRO	354	15.528	-2.571	14.271	1.00	23.54
	atom	2724	C	PRO	354	16.042	-4.838	16.383	1.00	27.24
	atom	2725	O	PRO	354	14.889	-5.090	16.034	1.00	22.85
30	atom	2726	N	GLN	355	16.532	-5.260	17.540	1.00	29.74
	atom	2727	CA	GLN	355	15.672	-6.012	18.452	1.00	32.54
	atom	2728	CB	GLN	355	16.264	-7.391	18.752	1.00	33.31
	atom	2729	CG	GLN	355	15.215	-8.408	19.199	1.00	42.98
	atom	2730	CD	GLN	355	15.701	-9.856	19.102	1.00	47.82
35	atom	2731	OE1	GLN	355	14.915	-10.774	18.818	1.00	47.88
	atom	2732	NE2	GLN	355	17.000	-10.066	19.337	1.00	47.91

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	atom	2733	C	GLN	355	15.504	-5.227	19.744	1.00	29.39
	atom	2734	O	GLN	355	16.490	-4.764	20.316	1.00	28.43
	atom	2735	N	PRO	356	14.255	-5.056	20.217	1.00	28.59
	atom	2736	CD	PRO	356	12.960	-5.521	19.690	1.00	28.05
5	atom	2737	CA	PRO	356	14.118	-4.298	21.463	1.00	29.05
	atom	2738	CB	PRO	356	12.621	-4.007	21.568	1.00	23.89
	atom	2739	CG	PRO	356	11.954	-4.958	20.661	1.00	27.97
	atom	2740	C	PRO	356	14.659	-5.097	22.649	1.00	33.81
	atom	2741	O	PRO	356	14.409	-6.307	22.776	1.00	33.07
10	atom	2742	N	GLU	357	15.426	-4.404	23.487	1.00	32.99
	atom	2743	CA	GLU	357	16.037	-4.979	24.667	1.00	34.32
	atom	2744	CB	GLU	357	17.539	-4.694	24.656	1.00	34.64
	atom	2745	CG	GLU	357	18.438	-5.917	24.654	1.00	41.61
	atom	2746	CD	GLU	357	17.794	-7.141	24.028	1.00	46.37
15	atom	2747	OE1	GLU	357	16.749	-7.006	23.347	1.00	49.58
	atom	2748	OE2	GLU	357	18.342	-8.247	24.215	1.00	47.15
	atom	2749	C	GLU	357	15.413	-4.379	25.916	1.00	36.99
	atom	2750	O	GLU	357	14.964	-3.227	25.908	1.00	40.64
	atom	2751	N	TYR	358	15.401	-5.161	26.990	1.00	37.60
20	atom	2752	CA	TYR	358	14.841	-4.724	28.257	1.00	35.53
	atom	2753	CB	TYR	358	13.519	-5.463	28.480	1.00	32.72
	atom	2754	CG	TYR	358	12.515	-5.183	27.373	1.00	31.24
	atom	2755	CD1	TYR	358	12.387	-6.055	26.278	1.00	29.89
	atom	2756	CE1	TYR	358	11.507	-5.776	25.234	1.00	30.39
25	atom	2757	CD2	TYR	358	11.724	-4.023	27.393	1.00	21.47
	atom	2758	CE2	TYR	358	10.844	-3.736	26.364	1.00	21.96
	atom	2759	CZ	TYR	358	10.740	-4.616	25.279	1.00	27.72
	atom	2760	OH	TYR	358	9.900	-4.319	24.229	1.00	21.73
	atom	2761	C	TYR	358	15.862	-5.014	29.369	1.00	37.22
30	atom	2762	O	TYR	358	15.656	-4.689	30.541	1.00	35.67
	atom	2763	N	ASP	359	16.974	-5.620	28.962	1.00	36.82
	atom	2764	CA	ASP	359	18.074	-5.977	29.851	1.00	39.59
	atom	2765	CB	ASP	359	18.331	-7.487	29.776	1.00	45.28
	atom	2766	CG	ASP	359	18.558	-8.120	31.136	1.00	48.29
35	atom	2767	OD1	ASP	359	18.876	-7.395	32.103	1.00	55.92
	atom	2768	OD2	ASP	359	18.426	-9.355	31.239	1.00	49.53

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	atom	2769	C	ASP	359	19.324	-5.228	29.385	1.00	38.72
	atom	2770	O	ASP	359	20.122	-5.763	28.607	1.00	39.87
	atom	2771	N	LEU	360	19.476	-3.994	29.857	1.00	36.52
	atom	2772	CA	LEU	360	20.603	-3.129	29.505	1.00	36.77
5	atom	2773	CB	LEU	360	20.901	-2.161	30.651	1.00	34.29
	atom	2774	CG	LEU	360	22.143	-1.272	30.465	1.00	37.55
	atom	2775	CD1	LEU	360	21.973	-0.372	29.248	1.00	29.93
	atom	2776	CD2	LEU	360	22.365	-0.420	31.727	1.00	36.42
	atom	2777	C	LEU	360	21.875	-3.882	29.146	1.00	36.90
10	atom	2778	O	LEU	360	22.551	-3.552	28.177	1.00	38.17
	atom	2779	N	GLU	361	22.194	-4.893	29.942	1.00	37.83
	atom	2780	CA	GLU	361	23.377	-5.717	29.744	1.00	35.87
	atom	2781	CB	GLU	361	23.416	-6.785	30.849	1.00	34.29
	atom	2782	CG	GLU	361	24.650	-7.694	30.868	1.00	32.02
15	atom	2783	CD	GLU	361	24.779	-8.475	32.178	1.00	36.91
	atom	2784	OE1	GLU	361	24.869	-9.725	32.113	1.00	36.54
	atom	2785	OE2	GLU	361	24.789	-7.842	33.271	1.00	34.86
	atom	2786	C	GLU	361	23.415	-6.384	28.355	1.00	37.17
	atom	2787	O	GLU	361	24.481	-6.547	27.769	1.00	37.31
20	atom	2788	N	LEU	362	22.254	-6.756	27.826	1.00	39.56
	atom	2789	CA	LEU	362	22.195	-7.429	26.529	1.00	40.91
	atom	2790	CB	LEU	362	20.932	-8.298	26.442	1.00	42.13
	atom	2791	CG	LEU	362	21.081	-9.614	27.229	1.00	43.71
	atom	2792	CD1	LEU	362	20.850	-9.356	28.708	1.00	43.86
25	atom	2793	CD2	LEU	362	20.106	-10.654	26.729	1.00	42.44
	atom	2794	C	LEU	362	22.279	-6.497	25.329	1.00	38.74
	atom	2795	O	LEU	362	22.270	-6.945	24.189	1.00	34.53
	atom	2796	N	ILE	363	22.375	-5.199	25.588	1.00	35.68
	atom	2797	CA	ILE	363	22.493	-4.246	24.507	1.00	33.38
30	atom	2798	CB	ILE	363	21.907	-2.870	24.889	1.00	31.46
	atom	2799	CG2	ILE	363	22.167	-1.849	23.766	1.00	25.00
	atom	2800	CG1	ILE	363	20.406	-3.015	25.153	1.00	33.04
	atom	2801	CD1	ILE	363	19.783	-1.853	25.910	1.00	32.87
	atom	2802	C	ILE	363	23.966	-4.082	24.202	1.00	33.97
35	atom	2803	O	ILE	363	24.668	-3.379	24.922	1.00	35.19
	atom	2804	N	THR	364	24.453	-4.739	23.156	1.00	36.06

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	atom	2805	CA	THR	364	25.860	-4.580	22.825	1.00	38.67
	atom	2806	CB	THR	364	26.496	-5.893	22.330	1.00	38.78
	atom	2807	OG1	THR	364	27.191	-5.659	21.100	1.00	39.96
	atom	2808	CG2	THR	364	25.436	-6.964	22.146	1.00	42.76
5	atom	2809	C	THR	364	25.946	-3.501	21.760	1.00	41.16
	atom	2810	O	THR	364	25.108	-3.444	20.865	1.00	42.45
	atom	2811	N	SER	365	26.940	-2.624	21.889	1.00	43.05
	atom	2812	CA	SER	365	27.134	-1.515	20.963	1.00	43.64
	atom	2813	CB	SER	365	26.338	-0.298	21.435	1.00	43.29
10	atom	2814	OG	SER	365	27.194	0.807	21.650	1.00	47.26
	atom	2815	C	SER	365	28.616	-1.176	20.899	1.00	44.44
	atom	2816	O	SER	365	29.278	-1.050	21.939	1.00	42.95
	atom	2817	N	CYS	366	29.121	-1.014	19.676	1.00	44.33
	atom	2818	CA	CYS	366	30.535	-0.734	19.444	1.00	41.74
15	atom	2819	CB	CYS	366	31.041	0.377	20.363	1.00	42.48
	atom	2820	SG	CYS	366	30.515	2.037	19.903	1.00	37.51
	atom	2821	C	CYS	366	31.250	-2.036	19.773	1.00	42.11
	atom	2822	O	CYS	366	32.321	-2.052	20.392	1.00	38.89
	atom	2823	N	SER	367	30.617	-3.128	19.361	1.00	41.96
20	atom	2824	CA	SER	367	31.134	-4.466	19.589	1.00	45.83
	atom	2825	CB	SER	367	32.423	-4.656	18.791	1.00	47.19
	atom	2826	OG	SER	367	32.141	-5.257	17.537	1.00	53.00
	atom	2827	C	SER	367	31.375	-4.789	21.071	1.00	45.17
	atom	2828	O	SER	367	32.167	-5.686	21.381	1.00	41.42
25	atom	2829	N	SER	368	30.687	-4.070	21.967	1.00	42.35
	atom	2830	CA	SER	368	30.829	-4.268	23.418	1.00	41.58
	atom	2831	CB	SER	368	31.988	-3.428	23.952	1.00	38.01
	atom	2832	OG	SER	368	31.614	-2.077	24.035	1.00	35.59
	atom	2833	C	SER	368	29.554	-3.930	24.193	1.00	39.93
30	atom	2834	O	SER	368	28.644	-3.323	23.648	1.00	45.35
	atom	2835	N	ASN	369	29.489	-4.315	25.465	1.00	37.24
	atom	2836	CA	ASN	369	28.292	-4.064	26.275	1.00	36.60
	atom	2837	CB	ASN	369	27.423	-5.307	26.268	1.00	31.85
	atom	2838	CG	ASN	369	28.114	-6.459	26.917	1.00	35.41
35	atom	2839	OD1	ASN	369	29.050	-7.021	26.344	1.00	29.53
	atom	2840	ND2	ASN	369	27.692	-6.807	28.136	1.00	31.65

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5	atom	2841	C	ASN	369	28.537	-3.650	27.737	1.00	30.94
	atom	2842	O	ASN	369	29.665	-3.589	28.203	1.00	34.12
	atom	2843	N	VAL	370	27.453	-3.381	28.453	1.00	30.55
	atom	2844	CA	VAL	370	27.508	-2.948	29.850	1.00	24.47
	atom	2845	CB	VAL	370	26.425	-1.882	30.166	1.00	27.62
	atom	2846	CG1	VAL	370	26.311	-1.705	31.672	1.00	30.91
	atom	2847	CG2	VAL	370	26.758	-0.549	29.495	1.00	24.11
10	atom	2848	C	VAL	370	27.248	-4.109	30.776	1.00	23.63
	atom	2849	O	VAL	370	26.241	-4.799	30.640	1.00	22.44
	atom	2850	N	SER	371	28.136	-4.313	31.739	1.00	22.16
	atom	2851	CA	SER	371	27.956	-5.410	32.676	1.00	22.77
	atom	2852	CB	SER	371	28.886	-6.575	32.309	1.00	24.91
	atom	2853	OG	SER	371	28.557	-7.746	33.040	1.00	22.94
	atom	2854	C	SER	371	28.214	-4.976	34.121	1.00	22.34
15	atom	2855	O	SER	371	28.838	-3.932	34.384	1.00	20.05
	atom	2856	N	VAL	372	27.745	-5.800	35.056	1.00	21.56
	atom	2857	CA	VAL	372	27.898	-5.509	36.473	1.00	15.57
	atom	2858	CB	VAL	372	26.561	-5.566	37.207	1.00	19.67
	atom	2859	CG1	VAL	372	26.720	-4.920	38.592	1.00	26.20
	atom	2860	CG2	VAL	372	25.471	-4.875	36.402	1.00	10.49
	atom	2861	C	VAL	372	28.832	-6.431	37.221	1.00	15.58
20	atom	2862	O	VAL	372	28.930	-7.627	36.922	1.00	14.13
	atom	2863	N	ALA	373	29.520	-5.845	38.196	1.00	16.39
	atom	2864	CA	ALA	373	30.438	-6.563	39.074	1.00	18.31
	atom	2865	CB	ALA	373	31.826	-6.545	38.495	1.00	16.15
	atom	2866	C	ALA	373	30.416	-5.854	40.438	1.00	20.53
	atom	2867	O	ALA	373	29.603	-4.963	40.667	1.00	26.41
	atom	2868	N	HIS	374	31.302	-6.233	41.347	1.00	23.28
30	atom	2869	CA	HIS	374	31.333	-5.589	42.654	1.00	21.68
	atom	2870	CB	HIS	374	30.696	-6.495	43.685	1.00	23.76
	atom	2871	CG	HIS	374	29.232	-6.653	43.487	1.00	23.91
	atom	2872	CD2	HIS	374	28.196	-5.868	43.863	1.00	25.69
	atom	2873	ND1	HIS	374	28.694	-7.672	42.732	1.00	26.95
	atom	2874	CE1	HIS	374	27.386	-7.507	42.650	1.00	29.89
	atom	2875	NE2	HIS	374	27.058	-6.420	43.327	1.00	29.47
35	atom	2876	C	HIS	374	32.732	-5.231	43.070	1.00	21.80

5	atom	2877	O	HIS	374	33.660	-6.002	42.859	1.00	21.70
	atom	2878	N	ASP	375	32.893	-4.064	43.675	1.00	24.44
	atom	2879	CA	ASP	375	34.228	-3.644	44.070	1.00	28.87
	atom	2880	CB	ASP	375	34.365	-2.128	43.963	1.00	26.72
	atom	2881	CG	ASP	375	34.061	-1.422	45.274	1.00	35.28
	atom	2882	OD1	ASP	375	32.918	-1.530	45.763	1.00	34.88
	atom	2883	OD2	ASP	375	34.971	-0.762	45.820	1.00	41.21
	atom	2884	C	ASP	375	34.624	-4.112	45.471	1.00	32.70
10	atom	2885	O	ASP	375	33.977	-4.977	46.062	1.00	31.75
	atom	2886	N	ALA	376	35.724	-3.549	45.961	1.00	37.02
	atom	2887	CA	ALA	376	36.280	-3.854	47.268	1.00	36.04
	atom	2888	CB	ALA	376	37.426	-2.890	47.558	1.00	35.93
	atom	2889	C	ALA	376	35.227	-3.765	48.368	1.00	38.47
15	atom	2890	O	ALA	376	35.063	-4.700	49.158	1.00	40.65
	atom	2891	N	SER	377	34.522	-2.636	48.418	1.00	36.68
	atom	2892	CA	SER	377	33.486	-2.408	49.421	1.00	36.49
	atom	2893	CB	SER	377	33.243	-0.906	49.597	1.00	37.48
	atom	2894	OG	SER	377	32.235	-0.446	48.709	1.00	39.42
20	atom	2895	C	SER	377	32.174	-3.088	49.060	1.00	35.46
	atom	2896	O	SER	377	31.138	-2.804	49.655	1.00	40.61
	atom	2897	N	GLY	378	32.218	-3.968	48.071	1.00	31.94
	atom	2898	CA	GLY	378	31.031	-4.694	47.656	1.00	30.54
	atom	2899	C	GLY	378	29.927	-3.897	46.985	1.00	29.00
25	atom	2900	O	GLY	378	28.841	-4.407	46.741	1.00	29.96
	atom	2901	N	LYS	379	30.181	-2.639	46.686	1.00	31.48
	atom	2902	CA	LYS	379	29.157	-1.850	46.036	1.00	35.92
	atom	2903	CB	LYS	379	29.458	-0.361	46.194	1.00	38.88
	atom	2904	CG	LYS	379	28.219	0.535	46.092	1.00	46.72
30	atom	2905	CD	LYS	379	28.395	1.885	46.812	1.00	49.32
	atom	2906	CE	LYS	379	29.863	2.313	46.891	1.00	52.18
	atom	2907	NZ	LYS	379	30.492	1.882	48.176	1.00	50.19
	atom	2908	C	LYS	379	29.128	-2.234	44.555	1.00	36.66
	atom	2909	O	LYS	379	30.180	-2.461	43.931	1.00	33.38
35	atom	2910	N	ARG	380	27.923	-2.320	44.001	1.00	33.24
	atom	2911	CA	ARG	380	27.769	-2.663	42.598	1.00	31.43
	atom	2912	CB	ARG	380	26.283	-2.688	42.216	1.00	28.74

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	atom	2913	CG	ARG	380	25.776	-4.105	41.995	1.00	31.92
	atom	2914	CD	ARG	380	24.294	-4.180	41.834	1.00	29.13
	atom	2915	NE	ARG	380	23.707	-2.877	41.580	1.00	37.71
	atom	2916	CZ	ARG	380	23.446	-2.397	40.370	1.00	44.95
5	atom	2917	NH1	ARG	380	23.727	-3.122	39.291	1.00	44.04
	atom	2918	NH2	ARG	380	22.876	-1.198	40.239	1.00	46.73
	atom	2919	C	ARG	380	28.514	-1.682	41.700	1.00	30.44
	atom	2920	O	ARG	380	28.505	-0.480	41.941	1.00	30.65
	atom	2921	N	VAL	381	29.185	-2.207	40.680	1.00	28.65
10	atom	2922	CA	VAL	381	29.908	-1.366	39.736	1.00	25.65
	atom	2923	CB	VAL	381	31.431	-1.334	40.028	1.00	24.97
	atom	2924	CG1	VAL	381	32.146	-0.472	38.976	1.00	27.18
	atom	2925	CG2	VAL	381	31.683	-0.758	41.417	1.00	21.96
	atom	2926	C	VAL	381	29.671	-1.827	38.289	1.00	25.25
15	atom	2927	O	VAL	381	29.862	-3.003	37.927	1.00	24.76
	atom	2928	N	TYR	382	29.229	-0.878	37.477	1.00	20.70
	atom	2929	CA	TYR	382	28.960	-1.113	36.069	1.00	22.49
	atom	2930	CB	TYR	382	27.831	-0.198	35.603	1.00	19.31
	atom	2931	CG	TYR	382	26.470	-0.566	36.127	1.00	19.83
20	atom	2932	CD1	TYR	382	25.954	0.048	37.275	1.00	23.95
	atom	2933	CE1	TYR	382	24.647	-0.207	37.707	1.00	23.01
	atom	2934	CD2	TYR	382	25.653	-1.453	35.428	1.00	15.52
	atom	2935	CE2	TYR	382	24.348	-1.718	35.841	1.00	16.17
	atom	2936	CZ	TYR	382	23.847	-1.083	36.980	1.00	24.06
25	atom	2937	OH	TYR	382	22.539	-1.289	37.367	1.00	27.97
	atom	2938	C	TYR	382	30.222	-0.797	35.268	1.00	20.28
	atom	2939	O	TYR	382	30.849	0.228	35.494	1.00	17.61
	atom	2940	N	TYR	383	30.577	-1.679	34.333	1.00	22.04
	atom	2941	CA	TYR	383	31.759	-1.498	33.480	1.00	17.05
30	atom	2942	CB	TYR	383	32.930	-2.279	34.066	1.00	14.01
	atom	2943	CG	TYR	383	32.781	-3.782	33.968	1.00	15.16
	atom	2944	CD1	TYR	383	31.806	-4.463	34.725	1.00	12.97
	atom	2945	CE1	TYR	383	31.650	-5.861	34.630	1.00	6.21
	atom	2946	CD2	TYR	383	33.608	-4.536	33.111	1.00	9.83
35	atom	2947	CE2	TYR	383	33.461	-5.920	33.013	1.00	7.71
	atom	2948	CZ	TYR	383	32.482	-6.570	33.769	1.00	10.71

	atom	2949	OH	TYR	383	32.324	-7.918	33.628	1.00	17.89
	atom	2950	C	TYR	383	31.539	-1.936	32.006	1.00	18.86
	atom	2951	O	TYR	383	30.604	-2.676	31.682	1.00	9.75
	atom	2952	N	LEU	384	32.428	-1.468	31.133	1.00	20.41
5	atom	2953	CA	LEU	384	32.387	-1.761	29.700	1.00	22.72
	atom	2954	CB	LEU	384	33.089	-0.653	28.906	1.00	27.28
	atom	2955	CG	LEU	384	32.206	0.373	28.189	1.00	33.06
	atom	2956	CD1	LEU	384	33.065	1.244	27.233	1.00	34.76
	atom	2957	CD2	LEU	384	31.112	-0.361	27.442	1.00	21.43
10	atom	2958	C	LEU	384	33.091	-3.066	29.392	1.00	23.29
	atom	2959	O	LEU	384	34.285	-3.224	29.672	1.00	16.65
	atom	2960	N	THR	385	32.368	-4.002	28.803	1.00	20.42
	atom	2961	CA	THR	385	33.006	-5.257	28.488	1.00	25.24
	atom	2962	CB	THR	385	32.725	-6.312	29.566	1.00	24.34
15	atom	2963	OG1	THR	385	33.725	-7.341	29.500	1.00	25.86
	atom	2964	CG2	THR	385	31.365	-6.920	29.353	1.00	25.15
	atom	2965	C	THR	385	32.625	-5.803	27.115	1.00	28.01
	atom	2966	O	THR	385	31.850	-5.190	26.371	1.00	27.17
	atom	2967	N	ARG	386	33.151	-6.976	26.788	1.00	29.12
20	atom	2968	CA	ARG	386	32.886	-7.513	25.479	1.00	27.83
	atom	2969	CB	ARG	386	33.539	-6.542	24.501	1.00	27.61
	atom	2970	CG	ARG	386	33.829	-7.097	23.168	1.00	31.30
	atom	2971	CD	ARG	386	35.308	-7.124	22.857	1.00	23.16
	atom	2972	NE	ARG	386	35.409	-7.801	21.577	1.00	16.35
25	atom	2973	CZ	ARG	386	35.558	-7.169	20.428	1.00	12.96
	atom	2974	NH1	ARG	386	35.634	-5.839	20.419	1.00	12.85
	atom	2975	NH2	ARG	386	35.542	-7.860	19.294	1.00	15.28
	atom	2976	C	ARG	386	33.418	-8.940	25.299	1.00	27.06
	atom	2977	O	ARG	386	34.192	-9.428	26.117	1.00	25.84
30	atom	2978	N	ASP	387	32.968	-9.613	24.242	1.00	27.53
	atom	2979	CA	ASP	387	33.450	-10.958	23.924	1.00	24.59
	atom	2980	CB	ASP	387	32.841	-11.422	22.615	1.00	24.42
	atom	2981	CG	ASP	387	33.009	-12.888	22.400	1.00	22.95
	atom	2982	OD1	ASP	387	32.016	-13.604	22.563	1.00	23.62
35	atom	2983	OD2	ASP	387	34.134	-13.329	22.072	1.00	27.28
	atom	2984	C	ASP	387	34.966	-10.785	23.765	1.00	23.96

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5	atom	2985	O	ASP	387	35.424	-9.879	23.071	1.00	22.34
	atom	2986	N	PRO	388	35.764	-11.665	24.379	1.00	19.21
	atom	2987	CD	PRO	388	35.473	-12.838	25.222	1.00	20.90
	atom	2988	CA	PRO	388	37.199	-11.474	24.242	1.00	20.36
	atom	2989	CB	PRO	388	37.714	-11.909	25.611	1.00	15.78
	atom	2990	CG	PRO	388	36.797	-13.039	25.993	1.00	10.82
	atom	2991	C	PRO	388	37.897	-12.209	23.107	1.00	22.20
	atom	2992	O	PRO	388	39.105	-12.068	22.936	1.00	27.27
10	atom	2993	N	THR	389	37.147	-12.986	22.341	1.00	21.30
	atom	2994	CA	THR	389	37.707	-13.756	21.233	1.00	20.33
	atom	2995	CB	THR	389	36.572	-14.319	20.365	1.00	22.95
	atom	2996	OG1	THR	389	35.905	-15.371	21.074	1.00	16.21
15	atom	2997	CG2	THR	389	37.116	-14.857	19.059	1.00	24.76
	atom	2998	C	THR	389	38.714	-13.017	20.333	1.00	21.29
	atom	2999	O	THR	389	39.837	-13.472	20.135	1.00	25.30
	atom	3000	N	THR	390	38.314	-11.879	19.790	1.00	21.06
	atom	3001	CA	THR	390	39.189	-11.112	18.907	1.00	20.45
	atom	3002	CB	THR	390	38.366	-9.966	18.182	1.00	22.74
	atom	3003	OG1	THR	390	37.404	-10.571	17.309	1.00	15.53
	atom	3004	CG2	THR	390	39.276	-9.031	17.364	1.00	9.68
20	atom	3005	C	THR	390	40.424	-10.547	19.625	1.00	21.65
	atom	3006	O	THR	390	41.555	-10.778	19.192	1.00	26.77
	atom	3007	N	PRO	391	40.232	-9.781	20.711	1.00	20.31
	atom	3008	CD	PRO	391	38.970	-9.345	21.336	1.00	24.13
25	atom	3009	CA	PRO	391	41.405	-9.241	21.410	1.00	18.82
	atom	3010	CB	PRO	391	40.820	-8.613	22.671	1.00	19.00
	atom	3011	CG	PRO	391	39.420	-8.283	22.309	1.00	22.38
	atom	3012	C	PRO	391	42.391	-10.359	21.751	1.00	19.91
30	atom	3013	O	PRO	391	43.597	-10.187	21.684	1.00	21.23
	atom	3014	N	LEU	392	41.856	-11.511	22.127	1.00	20.70
	atom	3015	CA	LEU	392	42.692	-12.650	22.458	1.00	20.82
	atom	3016	CB	LEU	392	41.841	-13.759	23.073	1.00	17.55
35	atom	3017	CG	LEU	392	41.345	-13.392	24.478	1.00	21.46
	atom	3018	CD1	LEU	392	40.825	-14.630	25.205	1.00	15.26
	atom	3019	CD2	LEU	392	42.485	-12.737	25.250	1.00	15.90
	atom	3020	C	LEU	392	43.416	-13.148	21.204	1.00	24.09

	atom	3021	O	LEU	392	44.650	-13.216	21.188	1.00	23.77
	atom	3022	N	ALA	393	42.664	-13.472	20.151	1.00	17.72
	atom	3023	CA	ALA	393	43.297	-13.951	18.936	1.00	16.17
	atom	3024	CB	ALA	393	42.258	-14.247	17.869	1.00	22.26
5	atom	3025	C	ALA	393	44.293	-12.917	18.436	1.00	12.90
	atom	3026	O	ALA	393	45.385	-13.261	18.017	1.00	13.43
	atom	3027	N	ARG	394	43.931	-11.645	18.489	1.00	14.42
	atom	3028	CA	ARG	394	44.846	-10.624	18.021	1.00	17.59
	atom	3029	CB	ARG	394	44.150	-9.256	17.943	1.00	14.82
10	atom	3030	CG	ARG	394	42.984	-9.215	16.962	1.00	16.07
	atom	3031	CD	ARG	394	42.631	-7.760	16.526	1.00	12.41
	atom	3032	NE	ARG	394	41.684	-7.773	15.413	1.00	14.24
	atom	3033	CZ	ARG	394	40.850	-6.787	15.087	1.00	17.39
	atom	3034	NH1	ARG	394	40.817	-5.667	15.781	1.00	10.53
15	atom	3035	NH2	ARG	394	40.019	-6.940	14.066	1.00	20.76
	atom	3036	C	ARG	394	46.004	-10.594	19.016	1.00	22.24
	atom	3037	O	ARG	394	47.155	-10.344	18.655	1.00	26.32
	atom	3038	N	ALA	395	45.685	-10.866	20.274	1.00	24.17
	atom	3039	CA	ALA	395	46.683	-10.893	21.330	1.00	22.92
20	atom	3040	CB	ALA	395	46.023	-11.255	22.648	1.00	21.94
	atom	3041	C	ALA	395	47.737	-11.929	20.955	1.00	21.60
	atom	3042	O	ALA	395	48.914	-11.617	20.853	1.00	26.01
	atom	3043	N	ALA	396	47.310	-13.161	20.731	1.00	17.87
	atom	3044	CA	ALA	396	48.241	-14.216	20.349	1.00	20.24
25	atom	3045	CB	ALA	396	47.456	-15.498	20.012	1.00	14.04
	atom	3046	C	ALA	396	49.138	-13.809	19.158	1.00	21.01
	atom	3047	O	ALA	396	50.365	-13.943	19.201	1.00	22.33
	atom	3048	N	TRP	397	48.510	-13.311	18.100	1.00	23.99
	atom	3049	CA	TRP	397	49.211	-12.899	16.895	1.00	24.01
30	atom	3050	CB	TRP	397	48.224	-12.242	15.910	1.00	26.48
	atom	3051	CG	TRP	397	48.767	-12.062	14.503	1.00	21.25
	atom	3052	CD2	TRP	397	48.534	-12.918	13.380	1.00	18.44
	atom	3053	CE2	TRP	397	49.284	-12.406	12.295	1.00	21.16
	atom	3054	CE3	TRP	397	47.767	-14.068	13.183	1.00	20.72
35	atom	3055	CD1	TRP	397	49.621	-11.083	14.067	1.00	24.22
	atom	3056	NE1	TRP	397	49.936	-11.286	12.739	1.00	26.31

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5	atom	3057	CZ2	TRP	397	49.289	-13.010	11.037	1.00	20.85
	atom	3058	CZ3	TRP	397	47.771	-14.672	11.924	1.00	21.73
	atom	3059	CH2	TRP	397	48.528	-14.140	10.872	1.00	22.07
	atom	3060	C	TRP	397	50.347	-11.933	17.192	1.00	26.70
	atom	3061	O	TRP	397	51.503	-12.193	16.868	1.00	28.31
10	atom	3062	N	GLU	398	50.017	-10.812	17.811	1.00	26.37
	atom	3063	CA	GLU	398	51.020	-9.806	18.112	1.00	27.65
	atom	3064	CB	GLU	398	50.315	-8.560	18.657	1.00	28.99
	atom	3065	CG	GLU	398	49.578	-7.787	17.567	1.00	18.59
	atom	3066	CD	GLU	398	48.272	-7.200	18.038	1.00	27.32
15	atom	3067	OE1	GLU	398	47.227	-7.608	17.484	1.00	24.97
	atom	3068	OE2	GLU	398	48.294	-6.338	18.953	1.00	22.57
	atom	3069	C	GLU	398	52.159	-10.274	19.032	1.00	30.21
	atom	3070	O	GLU	398	53.148	-9.560	19.213	1.00	31.40
	atom	3071	N	THR	399	52.014	-11.475	19.599	1.00	31.36
20	atom	3072	CA	THR	399	53.037	-12.088	20.452	1.00	28.89
	atom	3073	CB	THR	399	52.398	-12.967	21.550	1.00	28.74
	atom	3074	OG1	THR	399	51.402	-12.216	22.242	1.00	28.05
	atom	3075	CG2	THR	399	53.439	-13.418	22.545	1.00	27.81
	atom	3076	C	THR	399	53.919	-12.988	19.548	1.00	29.90
25	atom	3077	O	THR	399	55.110	-13.197	19.803	1.00	21.09
	atom	3078	N	ALA	400	53.309	-13.537	18.500	1.00	31.86
	atom	3079	CA	ALA	400	54.027	-14.377	17.532	1.00	29.44
	atom	3080	CB	ALA	400	53.043	-15.260	16.751	1.00	24.28
	atom	3081	C	ALA	400	54.805	-13.499	16.558	1.00	27.37
30	atom	3082	O	ALA	400	55.970	-13.745	16.318	1.00	28.03
	atom	3083	N	ARG	401	54.158	-12.463	16.021	1.00	30.79
	atom	3084	CA	ARG	401	54.770	-11.549	15.041	1.00	33.84
	atom	3085	CB	ARG	401	54.055	-11.686	13.691	1.00	36.55
	atom	3086	CG	ARG	401	54.832	-11.172	12.471	1.00	42.71
35	atom	3087	CD	ARG	401	54.461	-12.002	11.236	1.00	54.18
	atom	3088	NE	ARG	401	55.092	-11.549	9.991	1.00	62.65
	atom	3089	CZ	ARG	401	54.437	-11.329	8.849	1.00	63.48
	atom	3090	NH1	ARG	401	53.126	-11.515	8.781	1.00	62.64
	atom	3091	NH2	ARG	401	55.093	-10.928	7.768	1.00	62.06
	atom	3092	C	ARG	401	54.734	-10.078	15.451	1.00	35.86

5	atom	3093	O	ARG	401	53.655	-9.508	15.650	1.00	36.31
	atom	3094	N	HIS	402	55.908	-9.459	15.550	1.00	36.73
	atom	3095	CA	HIS	402	55.977	-8.055	15.929	1.00	43.53
	atom	3096	CB	HIS	402	57.419	-7.533	15.895	1.00	47.85
	atom	3097	CG	HIS	402	57.548	-6.102	16.332	1.00	54.22
10	atom	3098	CD2	HIS	402	58.535	-5.456	17.001	1.00	57.20
	atom	3099	ND1	HIS	402	56.583	-5.151	16.068	1.00	56.15
	atom	3100	CE1	HIS	402	56.969	-3.984	16.552	1.00	56.20
	atom	3101	NE2	HIS	402	58.151	-4.140	17.123	1.00	57.51
	atom	3102	C	HIS	402	55.103	-7.160	15.055	1.00	43.10
15	atom	3103	O	HIS	402	55.241	-7.116	13.828	1.00	37.82
	atom	3104	N	THR	403	54.228	-6.426	15.734	1.00	44.21
	atom	3105	CA	THR	403	53.286	-5.512	15.114	1.00	46.78
	atom	3106	CB	THR	403	51.872	-5.967	15.444	1.00	47.77
	atom	3107	OG1	THR	403	51.724	-6.042	16.865	1.00	53.44
20	atom	3108	CG2	THR	403	51.630	-7.356	14.879	1.00	45.97
	atom	3109	C	THR	403	53.549	-4.099	15.655	1.00	47.61
	atom	3110	O	THR	403	53.456	-3.852	16.855	1.00	48.66
	atom	3111	N	PRO	404	53.870	-3.149	14.769	1.00	46.68
	atom	3112	CD	PRO	404	53.955	-3.250	13.304	1.00	46.25
25	atom	3113	CA	PRO	404	54.147	-1.790	15.232	1.00	46.27
	atom	3114	CB	PRO	404	54.578	-1.057	13.961	1.00	45.29
	atom	3115	CG	PRO	404	53.928	-1.812	12.871	1.00	42.84
	atom	3116	C	PRO	404	52.976	-1.117	15.923	1.00	45.84
	atom	3117	O	PRO	404	53.160	-0.411	16.919	1.00	50.57
30	atom	3118	N	VAL	405	51.776	-1.312	15.384	1.00	42.54
	atom	3119	CA	VAL	405	50.579	-0.724	15.981	1.00	38.63
	atom	3120	CB	VAL	405	49.803	0.128	14.966	1.00	37.25
	atom	3121	CG1	VAL	405	48.415	0.436	15.507	1.00	35.73
	atom	3122	CG2	VAL	405	50.569	1.426	14.696	1.00	40.20
35	atom	3123	C	VAL	405	49.700	-1.852	16.487	1.00	35.69
	atom	3124	O	VAL	405	48.826	-2.352	15.771	1.00	35.97
	atom	3125	N	ASN	406	49.941	-2.248	17.733	1.00	32.68
	atom	3126	CA	ASN	406	49.213	-3.352	18.334	1.00	31.20
	atom	3127	CB	ASN	406	50.015	-3.941	19.506	1.00	36.47
	atom	3128	CG	ASN	406	50.173	-2.966	20.668	1.00	35.06

5	atom	3129	OD1	ASN	406	51.285	-2.715	21.130	1.00	41.22
	atom	3130	ND2	ASN	406	49.065	-2.424	21.146	1.00	31.42
	atom	3131	C	ASN	406	47.808	-3.032	18.804	1.00	29.41
	atom	3132	O	ASN	406	47.365	-1.882	18.785	1.00	26.28
	atom	3133	N	SER	407	47.121	-4.081	19.238	1.00	27.69
10	atom	3134	CA	SER	407	45.767	-3.967	19.737	1.00	26.15
	atom	3135	CB	SER	407	44.853	-4.921	18.963	1.00	26.19
	atom	3136	OG	SER	407	45.168	-6.272	19.273	1.00	23.64
	atom	3137	C	SER	407	45.714	-4.314	21.226	1.00	22.95
	atom	3138	O	SER	407	44.863	-3.800	21.955	1.00	20.75
15	atom	3139	N	TRP	408	46.620	-5.178	21.675	1.00	21.03
	atom	3140	CA	TRP	408	46.619	-5.595	23.075	1.00	21.98
	atom	3141	CB	TRP	408	47.656	-6.716	23.317	1.00	24.50
	atom	3142	CG	TRP	408	49.082	-6.282	23.337	1.00	34.03
	atom	3143	CD2	TRP	408	49.810	-5.745	24.453	1.00	38.01
20	atom	3144	CE2	TRP	408	51.112	-5.440	23.996	1.00	40.00
	atom	3145	CE3	TRP	408	49.488	-5.484	25.793	1.00	40.43
	atom	3146	CD1	TRP	408	49.947	-6.290	22.286	1.00	39.23
	atom	3147	NE1	TRP	408	51.166	-5.783	22.670	1.00	41.55
	atom	3148	CZ2	TRP	408	52.096	-4.890	24.829	1.00	38.74
25	atom	3149	CZ3	TRP	408	50.468	-4.935	26.622	1.00	39.17
	atom	3150	CH2	TRP	408	51.756	-4.644	26.132	1.00	38.81
	atom	3151	C	TRP	408	46.768	-4.475	24.109	1.00	17.96
	atom	3152	O	TRP	408	46.078	-4.492	25.123	1.00	14.08
	atom	3153	N	LEU	409	47.641	-3.496	23.867	1.00	18.71
30	atom	3154	CA	LEU	409	47.797	-2.409	24.821	1.00	20.06
	atom	3155	CB	LEU	409	48.926	-1.444	24.406	1.00	20.61
	atom	3156	CG	LEU	409	49.414	-0.424	25.474	1.00	18.35
	atom	3157	CD1	LEU	409	48.825	-0.708	26.837	1.00	5.22
	atom	3158	CD2	LEU	409	50.919	-0.481	25.586	1.00	23.57
35	atom	3159	C	LEU	409	46.474	-1.656	24.944	1.00	22.79
	atom	3160	O	LEU	409	46.007	-1.364	26.053	1.00	29.34
	atom	3161	N	GLY	410	45.878	-1.348	23.798	1.00	25.51
	atom	3162	CA	GLY	410	44.605	-0.645	23.766	1.00	17.80
	atom	3163	C	GLY	410	43.507	-1.458	24.420	1.00	17.47
	atom	3164	O	GLY	410	42.665	-0.911	25.130	1.00	20.34

5	atom	3165	N	ASN	411	43.495	-2.767	24.201	1.00	14.98
	atom	3166	CA	ASN	411	42.454	-3.585	24.810	1.00	19.92
	atom	3167	CB	ASN	411	42.508	-5.018	24.266	1.00	21.16
	atom	3168	CG	ASN	411	41.692	-5.177	22.990	1.00	26.01
	atom	3169	OD1	ASN	411	40.599	-4.618	22.865	1.00	21.55
10	atom	3170	ND2	ASN	411	42.227	-5.928	22.029	1.00	26.80
	atom	3171	C	ASN	411	42.598	-3.557	26.339	1.00	23.12
	atom	3172	O	ASN	411	41.613	-3.374	27.062	1.00	24.27
	atom	3173	N	ILE	412	43.828	-3.712	26.828	1.00	23.33
	atom	3174	CA	ILE	412	44.063	-3.656	28.259	1.00	24.19
15	atom	3175	CB	ILE	412	45.569	-3.726	28.603	1.00	23.03
	atom	3176	CG2	ILE	412	45.826	-3.053	29.955	1.00	15.90
	atom	3177	CG1	ILE	412	46.035	-5.182	28.659	1.00	18.08
	atom	3178	CD1	ILE	412	47.533	-5.304	28.729	1.00	18.86
	atom	3179	C	ILE	412	43.518	-2.306	28.732	1.00	27.08
20	atom	3180	O	ILE	412	42.661	-2.239	29.627	1.00	26.35
	atom	3181	N	ILE	413	44.013	-1.235	28.113	1.00	23.29
	atom	3182	CA	ILE	413	43.589	0.109	28.474	1.00	24.70
	atom	3183	CB	ILE	413	44.176	1.146	27.508	1.00	23.52
	atom	3184	CG2	ILE	413	43.518	2.492	27.738	1.00	22.97
25	atom	3185	CG1	ILE	413	45.694	1.227	27.684	1.00	18.99
	atom	3186	CD1	ILE	413	46.187	2.585	28.110	1.00	16.43
	atom	3187	C	ILE	413	42.067	0.270	28.478	1.00	28.54
	atom	3188	O	ILE	413	41.460	0.546	29.509	1.00	28.45
	atom	3189	N	MET	414	41.452	0.086	27.319	1.00	28.25
30	atom	3190	CA	MET	414	40.015	0.253	27.203	1.00	29.19
	atom	3191	CB	MET	414	39.604	0.219	25.728	1.00	32.24
	atom	3192	CG	MET	414	40.255	1.305	24.859	1.00	34.56
	atom	3193	SD	MET	414	39.867	2.994	25.373	1.00	39.45
	atom	3194	CE	MET	414	38.086	3.098	24.803	1.00	32.14
35	atom	3195	C	MET	414	39.187	-0.757	27.972	1.00	27.51
	atom	3196	O	MET	414	38.041	-0.487	28.318	1.00	23.15
	atom	3197	N	TYR	415	39.758	-1.917	28.263	1.00	25.08
	atom	3198	CA	TYR	415	38.982	-2.922	28.955	1.00	20.32
	atom	3199	CB	TYR	415	38.725	-4.072	27.992	1.00	24.28
	atom	3200	CG	TYR	415	37.789	-3.703	26.859	1.00	25.64

	atom	3201	CD1	TYR	415	38.232	-3.672	25.534	1.00	29.56
	atom	3202	CE1	TYR	415	37.361	-3.339	24.487	1.00	27.98
	atom	3203	CD2	TYR	415	36.462	-3.393	27.111	1.00	18.42
	atom	3204	CE2	TYR	415	35.593	-3.063	26.090	1.00	26.13
5	atom	3205	CZ	TYR	415	36.044	-3.036	24.781	1.00	29.85
	atom	3206	OH	TYR	415	35.174	-2.681	23.781	1.00	36.03
	atom	3207	C	TYR	415	39.593	-3.430	30.254	1.00	21.46
	atom	3208	O	TYR	415	39.341	-4.565	30.658	1.00	25.89
	atom	3209	N	ALA	416	40.352	-2.571	30.928	1.00	15.41
10	atom	3210	CA	ALA	416	41.025	-2.928	32.166	1.00	15.54
	atom	3211	CB	ALA	416	41.809	-1.707	32.723	1.00	11.41
	atom	3212	C	ALA	416	40.135	-3.493	33.264	1.00	15.02
	atom	3213	O	ALA	416	40.489	-4.460	33.928	1.00	19.20
	atom	3214	N	PRO	417	38.939	-2.947	33.425	1.00	15.08
15	atom	3215	CD	PRO	417	38.235	-1.912	32.652	1.00	12.21
	atom	3216	CA	PRO	417	38.135	-3.507	34.508	1.00	13.68
	atom	3217	CB	PRO	417	36.989	-2.508	34.674	1.00	18.98
	atom	3218	CG	PRO	417	37.110	-1.512	33.544	1.00	14.83
	atom	3219	C	PRO	417	37.627	-4.915	34.303	1.00	19.04
20	atom	3220	O	PRO	417	37.314	-5.597	35.268	1.00	18.22
	atom	3221	N	THR	418	37.546	-5.373	33.059	1.00	20.00
	atom	3222	CA	THR	418	37.007	-6.709	32.851	1.00	20.89
	atom	3223	CB	THR	418	36.708	-7.032	31.360	1.00	18.03
	atom	3224	OG1	THR	418	37.937	-7.202	30.657	1.00	23.26
25	atom	3225	CG2	THR	418	35.899	-5.922	30.713	1.00	19.85
	atom	3226	C	THR	418	37.886	-7.812	33.389	1.00	19.47
	atom	3227	O	THR	418	39.036	-7.597	33.759	1.00	21.87
	atom	3228	N	LEU	419	37.305	-9.001	33.388	1.00	18.19
	atom	3229	CA	LEU	419	37.917	-10.204	33.863	1.00	17.41
30	atom	3230	CB	LEU	419	36.788	-11.115	34.280	1.00	17.35
	atom	3231	CG	LEU	419	36.701	-12.615	34.162	1.00	17.06
	atom	3232	CD1	LEU	419	37.430	-13.251	35.320	1.00	15.19
	atom	3233	CD2	LEU	419	35.206	-13.000	34.168	1.00	2.59
	atom	3234	C	LEU	419	38.863	-10.856	32.854	1.00	21.73
35	atom	3235	O	LEU	419	39.865	-11.452	33.246	1.00	25.73
	atom	3236	N	TRP	420	38.586	-10.727	31.559	1.00	19.46

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	atom	3237	CA	TRP	420	39.486	-11.317	30.572	1.00	15.85
	atom	3238	CB	TRP	420	38.828	-11.420	29.185	1.00	17.26
	atom	3239	CG	TRP	420	38.072	-10.210	28.695	1.00	16.89
	atom	3240	CD2	TRP	420	38.525	-9.232	27.738	1.00	20.44
5	atom	3241	CE2	TRP	420	37.459	-8.323	27.530	1.00	17.05
	atom	3242	CE3	TRP	420	39.724	-9.039	27.033	1.00	15.89
	atom	3243	CD1	TRP	420	36.790	-9.859	29.015	1.00	18.15
	atom	3244	NE1	TRP	420	36.416	-8.727	28.321	1.00	17.75
	atom	3245	CZ2	TRP	420	37.559	-7.234	26.655	1.00	21.08
10	atom	3246	CZ3	TRP	420	39.817	-7.957	26.157	1.00	18.36
	atom	3247	CH2	TRP	420	38.741	-7.070	25.975	1.00	14.83
	atom	3248	C	TRP	420	40.773	-10.517	30.460	1.00	20.31
	atom	3249	O	TRP	420	41.873	-11.087	30.443	1.00	21.36
	atom	3250	N	ALA	421	40.645	-9.192	30.395	1.00	18.99
15	atom	3251	CA	ALA	421	41.820	-8.323	30.278	1.00	19.53
	atom	3252	CB	ALA	421	41.381	-6.885	30.005	1.00	14.34
	atom	3253	C	ALA	421	42.723	-8.365	31.510	1.00	22.41
	atom	3254	O	ALA	421	43.950	-8.434	31.397	1.00	22.08
	atom	3255	N	ARG	422	42.103	-8.320	32.685	1.00	25.03
20	atom	3256	CA	ARG	422	42.836	-8.340	33.945	1.00	25.45
	atom	3257	CB	ARG	422	41.871	-8.167	35.132	1.00	22.24
	atom	3258	CG	ARG	422	41.631	-6.722	35.541	1.00	26.34
	atom	3259	CD	ARG	422	40.429	-6.583	36.472	1.00	25.25
	atom	3260	NE	ARG	422	40.825	-6.700	37.880	1.00	31.26
25	atom	3261	CZ	ARG	422	40.010	-7.084	38.859	1.00	26.82
	atom	3262	NH1	ARG	422	38.748	-7.390	38.585	1.00	25.53
	atom	3263	NH2	ARG	422	40.458	-7.149	40.107	1.00	28.34
	atom	3264	C	ARG	422	43.612	-9.635	34.129	1.00	25.74
	atom	3265	O	ARG	422	44.832	-9.624	34.302	1.00	24.21
30	atom	3266	N	MET	423	42.893	-10.751	34.070	1.00	25.90
	atom	3267	CA	MET	423	43.493	-12.046	34.287	1.00	23.33
	atom	3268	CB	MET	423	42.416	-13.048	34.692	1.00	22.80
	atom	3269	CG	MET	423	41.858	-12.787	36.097	1.00	17.76
	atom	3270	SD	MET	423	40.368	-13.726	36.473	1.00	26.13
35	atom	3271	CE	MET	423	41.069	-15.281	36.925	1.00	29.78
	atom	3272	C	MET	423	44.296	-12.585	33.131	1.00	27.38

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	atom	3273	O	MET	423	45.426	-13.025	33.318	1.00	32.41
	atom	3274	N	ILE	424	43.738	-12.548	31.932	1.00	28.00
	atom	3275	CA	ILE	424	44.464	-13.078	30.796	1.00	28.12
	atom	3276	CB	ILE	424	43.499	-13.585	29.690	1.00	29.39
5	atom	3277	CG2	ILE	424	44.250	-14.508	28.733	1.00	32.06
	atom	3278	CG1	ILE	424	42.316	-14.325	30.315	1.00	27.61
	atom	3279	CD1	ILE	424	41.834	-15.508	29.508	1.00	26.72
	atom	3280	C	ILE	424	45.456	-12.105	30.170	1.00	26.23
	atom	3281	O	ILE	424	46.645	-12.374	30.126	1.00	21.98
10	atom	3282	N	LEU	425	44.973	-10.969	29.694	1.00	26.96
	atom	3283	CA	LEU	425	45.856	-10.022	29.046	1.00	23.05
	atom	3284	CB	LEU	425	45.034	-8.867	28.472	1.00	23.77
	atom	3285	CG	LEU	425	44.802	-8.870	26.943	1.00	21.55
	atom	3286	CD1	LEU	425	44.583	-10.282	26.377	1.00	21.92
15	atom	3287	CD2	LEU	425	43.602	-7.999	26.653	1.00	17.53
	atom	3288	C	LEU	425	46.998	-9.519	29.926	1.00	26.70
	atom	3289	O	LEU	425	48.140	-9.950	29.742	1.00	30.65
	atom	3290	N	MET	426	46.713	-8.636	30.884	1.00	24.60
	atom	3291	CA	MET	426	47.761	-8.101	31.771	1.00	19.17
20	atom	3292	CB	MET	426	47.148	-7.514	33.049	1.00	17.82
	atom	3293	CG	MET	426	46.479	-6.141	32.881	1.00	24.33
	atom	3294	SD	MET	426	45.521	-5.688	34.357	1.00	22.16
	atom	3295	CE	MET	426	44.029	-4.983	33.628	1.00	23.93
	atom	3296	C	MET	426	48.777	-9.165	32.188	1.00	19.10
25	atom	3297	O	MET	426	49.989	-8.979	32.054	1.00	12.33
	atom	3298	N	THR	427	48.267	-10.281	32.700	1.00	18.78
	atom	3299	CA	THR	427	49.125	-11.352	33.182	1.00	21.30
	atom	3300	CB	THR	427	48.283	-12.569	33.636	1.00	20.56
	atom	3301	OG1	THR	427	47.293	-12.125	34.571	1.00	21.39
30	atom	3302	CG2	THR	427	49.155	-13.620	34.317	1.00	18.69
	atom	3303	C	THR	427	50.149	-11.783	32.149	1.00	25.61
	atom	3304	O	THR	427	51.348	-11.796	32.435	1.00	23.48
	atom	3305	N	HIS	428	49.671	-12.071	30.934	1.00	29.58
	atom	3306	CA	HIS	428	50.514	-12.543	29.834	1.00	25.46
35	atom	3307	CB	HIS	428	49.628	-13.067	28.688	1.00	25.48
	atom	3308	CG	HIS	428	50.383	-13.412	27.438	1.00	28.07

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	atom	3309	CD2	HIS	428	50.706	-14.609	26.893	1.00	26.29
	atom	3310	ND1	HIS	428	50.920	-12.456	26.599	1.00	32.13
	atom	3311	CE1	HIS	428	51.541	-13.049	25.595	1.00	28.43
	atom	3312	NE2	HIS	428	51.425	-14.355	25.750	1.00	27.25
5	atom	3313	C	HIS	428	51.553	-11.574	29.270	1.00	23.01
	atom	3314	O	HIS	428	52.687	-11.962	29.011	1.00	24.23
	atom	3315	N	PHE	429	51.192	-10.318	29.086	1.00	21.06
	atom	3316	CA	PHE	429	52.150	-9.404	28.496	1.00	22.48
	atom	3317	CB	PHE	429	51.430	-8.262	27.773	1.00	25.70
10	atom	3318	CG	PHE	429	50.958	-8.633	26.394	1.00	28.92
	atom	3319	CD1	PHE	429	49.682	-9.146	26.200	1.00	26.69
	atom	3320	CD2	PHE	429	51.804	-8.501	25.291	1.00	27.61
	atom	3321	CE1	PHE	429	49.252	-9.529	24.932	1.00	31.49
	atom	3322	CE2	PHE	429	51.380	-8.883	24.017	1.00	27.65
15	atom	3323	CZ	PHE	429	50.105	-9.398	23.835	1.00	26.84
	atom	3324	C	PHE	429	53.137	-8.872	29.492	1.00	20.77
	atom	3325	O	PHE	429	54.265	-8.563	29.139	1.00	21.91
	atom	3326	N	PHE	430	52.733	-8.751	30.745	1.00	22.30
	atom	3327	CA	PHE	430	53.700	-8.286	31.726	1.00	22.59
20	atom	3328	CB	PHE	430	53.033	-7.977	33.072	1.00	24.91
	atom	3329	CG	PHE	430	52.774	-6.514	33.259	1.00	26.03
	atom	3330	CD1	PHE	430	51.602	-5.939	32.762	1.00	30.68
	atom	3331	CD2	PHE	430	53.749	-5.686	33.811	1.00	20.79
	atom	3332	CE1	PHE	430	51.415	-4.553	32.802	1.00	28.98
25	atom	3333	CE2	PHE	430	53.572	-4.323	33.855	1.00	21.47
	atom	3334	CZ	PHE	430	52.405	-3.747	33.348	1.00	22.42
	atom	3335	C	PHE	430	54.799	-9.330	31.867	1.00	13.18
	atom	3336	O	PHE	430	55.966	-8.994	31.865	1.00	12.59
	atom	3337	N	SER	431	54.435	-10.596	31.928	1.00	11.96
30	atom	3338	CA	SER	431	55.455	-11.637	32.033	1.00	20.34
	atom	3339	CB	SER	431	54.813	-13.002	32.226	1.00	20.23
	atom	3340	OG	SER	431	55.091	-13.821	31.115	1.00	30.81
	atom	3341	C	SER	431	56.344	-11.684	30.794	1.00	23.41
	atom	3342	O	SER	431	57.555	-11.847	30.903	1.00	22.98
35	atom	3343	N	ILE	432	55.732	-11.548	29.617	1.00	26.02
	atom	3344	CA	ILE	432	56.470	-11.565	28.354	1.00	24.15

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5	atom	3345	CB	ILE	432	55.507	-11.580	27.130	1.00	29.47
	atom	3346	CG2	ILE	432	56.290	-11.349	25.834	1.00	26.68
	atom	3347	CG1	ILE	432	54.737	-12.905	27.079	1.00	23.71
	atom	3348	CD1	ILE	432	55.608	-14.126	26.962	1.00	28.14
	atom	3349	C	ILE	432	57.348	-10.329	28.264	1.00	23.16
	atom	3350	O	ILE	432	58.558	-10.426	28.106	1.00	23.35
	atom	3351	N	LEU	433	56.724	-9.164	28.371	1.00	23.94
	atom	3352	CA	LEU	433	57.435	-7.894	28.309	1.00	28.88
	atom	3353	CB	LEU	433	56.441	-6.747	28.501	1.00	30.58
	atom	3354	CG	LEU	433	56.346	-5.678	27.407	1.00	33.37
10	atom	3355	CD1	LEU	433	56.205	-6.322	26.028	1.00	32.23
	atom	3356	CD2	LEU	433	55.145	-4.785	27.718	1.00	36.50
	atom	3357	C	LEU	433	58.553	-7.817	29.363	1.00	31.43
	atom	3358	O	LEU	433	59.625	-7.268	29.121	1.00	31.96
	atom	3359	N	LEU	434	58.284	-8.367	30.540	1.00	34.05
15	atom	3360	CA	LEU	434	59.254	-8.402	31.629	1.00	32.03
	atom	3361	CB	LEU	434	58.606	-9.059	32.855	1.00	33.37
	atom	3362	CG	LEU	434	59.129	-8.941	34.288	1.00	31.50
	atom	3363	CD1	LEU	434	59.629	-7.550	34.594	1.00	34.29
	atom	3364	CD2	LEU	434	57.989	-9.282	35.220	1.00	34.33
20	atom	3365	C	LEU	434	60.470	-9.231	31.203	1.00	30.59
	atom	3366	O	LEU	434	61.612	-8.795	31.326	1.00	30.54
	atom	3367	N	ALA	435	60.200	-10.429	30.696	1.00	28.04
	atom	3368	CA	ALA	435	61.236	-11.357	30.283	1.00	27.70
	atom	3369	CB	ALA	435	60.606	-12.560	29.606	1.00	23.29
25	atom	3370	C	ALA	435	62.303	-10.759	29.389	1.00	31.48
	atom	3371	O	ALA	435	63.493	-10.976	29.618	1.00	37.97
	atom	3372	N	GLN	436	61.890	-10.007	28.379	1.00	33.13
	atom	3373	CA	GLN	436	62.827	-9.398	27.444	1.00	34.38
	atom	3374	CB	GLN	436	62.195	-9.358	26.051	1.00	33.83
30	atom	3375	CG	GLN	436	61.279	-10.536	25.748	1.00	36.51
	atom	3376	CD	GLN	436	60.003	-10.132	25.018	1.00	42.61
	atom	3377	OE1	GLN	436	59.401	-9.102	25.321	1.00	44.59
	atom	3378	NE2	GLN	436	59.585	-10.948	24.051	1.00	42.60
	atom	3379	C	GLN	436	63.300	-7.991	27.832	1.00	35.80
35	atom	3380	O	GLN	436	63.988	-7.329	27.065	1.00	34.86

	atom	3381	N	GLU	437	62.953	-7.537	29.028	1.00	39.49
	atom	3382	CA	GLU	437	63.343	-6.191	29.471	1.00	45.63
	atom	3383	CB	GLU	437	64.878	-6.048	29.504	1.00	47.97
	atom	3384	CG	GLU	437	65.637	-7.268	30.035	1.00	51.93
5	atom	3385	CD	GLU	437	65.701	-7.312	31.563	1.00	56.66
	atom	3386	OE1	GLU	437	65.318	-6.303	32.208	1.00	56.30
	atom	3387	OE2	GLU	437	66.128	-8.355	32.117	1.00	50.71
	atom	3388	C	GLU	437	62.733	-5.103	28.553	1.00	45.05
	atom	3389	O	GLU	437	63.433	-4.196	28.096	1.00	40.40
10	atom	3390	N	GLN	438	61.422	-5.206	28.316	1.00	44.81
	atom	3391	CA	GLN	438	60.671	-4.273	27.467	1.00	44.57
	atom	3392	CB	GLN	438	59.854	-5.054	26.427	1.00	43.31
	atom	3393	CG	GLN	438	60.666	-5.719	25.329	1.00	41.52
	atom	3394	CD	GLN	438	61.618	-4.766	24.653	1.00	39.73
15	atom	3395	OE1	GLN	438	61.417	-3.560	24.682	1.00	39.88
	atom	3396	NE2	GLN	438	62.669	-5.304	24.040	1.00	40.97
	atom	3397	C	GLN	438	59.709	-3.302	28.191	1.00	44.17
	atom	3398	O	GLN	438	59.284	-2.309	27.600	1.00	47.18
	atom	3399	N	LEU	439	59.358	-3.591	29.443	1.00	39.41
20	atom	3400	CA	LEU	439	58.437	-2.757	30.234	1.00	35.63
	atom	3401	CB	LEU	439	58.619	-3.047	31.725	1.00	36.65
	atom	3402	CG	LEU	439	57.675	-3.977	32.484	1.00	35.38
	atom	3403	CD1	LEU	439	56.661	-4.630	31.580	1.00	37.24
	atom	3404	CD2	LEU	439	58.520	-5.014	33.152	1.00	35.93
25	atom	3405	C	LEU	439	58.533	-1.240	30.046	1.00	34.88
	atom	3406	O	LEU	439	57.513	-0.533	30.050	1.00	31.04
	atom	3407	N	GLU	440	59.752	-0.732	29.900	1.00	31.23
	atom	3408	CA	GLU	440	59.929	0.700	29.749	1.00	34.08
	atom	3409	CB	GLU	440	61.203	1.137	30.471	1.00	36.60
30	atom	3410	CG	GLU	440	61.344	0.546	31.869	1.00	46.25
	atom	3411	CD	GLU	440	62.326	-0.619	31.917	1.00	51.65
	atom	3412	OE1	GLU	440	62.004	-1.705	31.381	1.00	55.45
	atom	3413	OE2	GLU	440	63.425	-0.451	32.489	1.00	56.28
	atom	3414	C	GLU	440	59.933	1.195	28.297	1.00	33.24
35	atom	3415	O	GLU	440	60.157	2.383	28.047	1.00	32.66
	atom	3416	N	LYS	441	59.674	0.288	27.357	1.00	29.40

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	atom	3417	CA	LYS	441	59.625	0.618	25.933	1.00	32.91
	atom	3418	CB	LYS	441	60.021	-0.616	25.097	1.00	35.80
	atom	3419	CG	LYS	441	59.636	-0.582	23.593	1.00	44.21
	atom	3420	CD	LYS	441	59.066	-1.942	23.090	1.00	43.76
5	atom	3421	CE	LYS	441	59.752	-2.436	21.800	1.00	42.14
	atom	3422	NZ	LYS	441	59.679	-3.931	21.557	1.00	32.91
	atom	3423	C	LYS	441	58.202	1.057	25.586	1.00	32.30
	atom	3424	O	LYS	441	57.277	0.247	25.575	1.00	34.79
	atom	3425	N	ALA	442	58.011	2.341	25.328	1.00	32.09
10	atom	3426	CA	ALA	442	56.679	2.814	24.988	1.00	34.73
	atom	3427	CB	ALA	442	56.654	4.321	24.923	1.00	34.99
	atom	3428	C	ALA	442	56.272	2.233	23.646	1.00	35.06
	atom	3429	O	ALA	442	57.004	2.353	22.667	1.00	34.73
	atom	3430	N	LEU	443	55.107	1.597	23.612	1.00	34.80
15	atom	3431	CA	LEU	443	54.583	1.006	22.388	1.00	32.57
	atom	3432	CB	LEU	443	54.064	-0.403	22.665	1.00	32.82
	atom	3433	CG	LEU	443	54.984	-1.291	23.493	1.00	31.23
	atom	3434	CD1	LEU	443	54.192	-2.002	24.599	1.00	29.05
	atom	3435	CD2	LEU	443	55.669	-2.279	22.557	1.00	27.43
20	atom	3436	C	LEU	443	53.444	1.873	21.859	1.00	33.71
	atom	3437	O	LEU	443	52.839	2.644	22.602	1.00	32.92
	atom	3438	N	ASP	444	53.166	1.754	20.569	1.00	34.97
	atom	3439	CA	ASP	444	52.098	2.517	19.940	1.00	34.69
	atom	3440	CB	ASP	444	52.472	2.874	18.505	1.00	35.84
25	atom	3441	CG	ASP	444	53.339	4.102	18.421	1.00	40.11
	atom	3442	OD1	ASP	444	53.370	4.882	19.394	1.00	47.24
	atom	3443	OD2	ASP	444	53.996	4.295	17.382	1.00	43.96
	atom	3444	C	ASP	444	50.868	1.635	19.921	1.00	36.94
	atom	3445	O	ASP	444	50.976	0.412	19.918	1.00	42.96
30	atom	3446	N	CYS	445	49.700	2.255	19.911	1.00	35.62
	atom	3447	CA	CYS	445	48.446	1.530	19.876	1.00	32.06
	atom	3448	CB	CYS	445	48.165	0.899	21.244	1.00	31.49
	atom	3449	SG	CYS	445	47.942	2.070	22.618	1.00	32.37
	atom	3450	C	CYS	445	47.427	2.596	19.526	1.00	34.19
35	atom	3451	O	CYS	445	47.747	3.783	19.552	1.00	36.00
	atom	3452	N	GLN	446	46.208	2.210	19.189	1.00	38.21

5	atom	3453	CA	GLN	446	45.232	3.232	18.843	1.00	40.12
	atom	3454	CB	GLN	446	44.836	3.088	17.375	1.00	43.49
	atom	3455	CG	GLN	446	44.134	1.781	17.046	1.00	52.73
	atom	3456	CD	GLN	446	43.416	1.812	15.698	1.00	53.41
	atom	3457	OE1	GLN	446	42.751	2.793	15.356	1.00	52.33
	atom	3458	NE2	GLN	446	43.547	0.729	14.931	1.00	52.81
	atom	3459	C	GLN	446	43.984	3.293	19.738	1.00	38.91
	atom	3460	O	GLN	446	43.387	2.275	20.087	1.00	37.38
10	atom	3461	N	ILE	447	43.621	4.514	20.115	1.00	35.95
	atom	3462	CA	ILE	447	42.458	4.779	20.950	1.00	35.14
	atom	3463	CB	ILE	447	42.826	5.654	22.194	1.00	35.06
	atom	3464	CG2	ILE	447	41.566	6.057	22.954	1.00	28.93
15	atom	3465	CG1	ILE	447	43.773	4.894	23.124	1.00	35.72
	atom	3466	CD1	ILE	447	44.576	5.816	24.017	1.00	35.52
	atom	3467	C	ILE	447	41.499	5.578	20.071	1.00	36.57
	atom	3468	O	ILE	447	41.780	6.736	19.729	1.00	37.05
	atom	3469	N	TYR	448	40.380	4.969	19.687	1.00	32.88
	atom	3470	CA	TYR	448	39.405	5.666	18.850	1.00	29.32
	atom	3471	CB	TYR	448	38.867	6.903	19.574	1.00	30.94
	atom	3472	CG	TYR	448	37.916	6.619	20.725	1.00	35.92
20	atom	3473	CD1	TYR	448	37.379	7.668	21.478	1.00	34.37
	atom	3474	CE1	TYR	448	36.485	7.425	22.517	1.00	32.55
	atom	3475	CD2	TYR	448	37.529	5.308	21.049	1.00	33.84
	atom	3476	CE2	TYR	448	36.634	5.058	22.090	1.00	32.27
25	atom	3477	CZ	TYR	448	36.118	6.124	22.819	1.00	33.86
	atom	3478	OH	TYR	448	35.242	5.899	23.863	1.00	34.45
	atom	3479	C	TYR	448	39.994	6.105	17.513	1.00	26.03
	atom	3480	O	TYR	448	39.660	7.168	17.007	1.00	25.23
30	atom	3481	N	GLY	449	40.892	5.303	16.955	1.00	25.14
	atom	3482	CA	GLY	449	41.467	5.646	15.665	1.00	30.15
	atom	3483	C	GLY	449	42.817	6.336	15.692	1.00	29.86
	atom	3484	O	GLY	449	43.684	6.062	14.857	1.00	31.59
35	atom	3485	N	ALA	450	42.993	7.258	16.626	1.00	30.00
	atom	3486	CA	ALA	450	44.265	7.942	16.740	1.00	27.32
	atom	3487	CB	ALA	450	44.132	9.207	17.585	1.00	29.76
	atom	3488	C	ALA	450	45.190	6.951	17.423	1.00	27.92

5	atom	3489	O	ALA	450	44.768	6.122	18.240	1.00	21.53
	atom	3490	N	CYS	451	46.456	7.022	17.057	1.00	29.64
	atom	3491	CA	CYS	451	47.436	6.141	17.640	1.00	33.17
	atom	3492	CB	CYS	451	48.345	5.611	16.524	1.00	27.89
	atom	3493	SG	CYS	451	50.112	5.858	16.743	1.00	35.52
	atom	3494	C	CYS	451	48.185	6.956	18.720	1.00	31.89
	atom	3495	O	CYS	451	48.393	8.168	18.586	1.00	29.04
	atom	3496	N	TYR	452	48.539	6.309	19.821	1.00	31.86
	atom	3497	CA	TYR	452	49.242	7.028	20.878	1.00	35.81
	atom	3498	CB	TYR	452	48.324	7.220	22.095	1.00	34.55
10	atom	3499	CG	TYR	452	47.172	8.175	21.868	1.00	35.92
	atom	3500	CD1	TYR	452	45.941	7.719	21.381	1.00	39.87
	atom	3501	CE1	TYR	452	44.862	8.594	21.203	1.00	37.75
	atom	3502	CD2	TYR	452	47.298	9.526	22.161	1.00	35.65
	atom	3503	CE2	TYR	452	46.230	10.403	21.987	1.00	39.32
	atom	3504	CZ	TYR	452	45.021	9.935	21.509	1.00	38.29
	atom	3505	OH	TYR	452	43.981	10.820	21.357	1.00	44.55
	atom	3506	C	TYR	452	50.531	6.336	21.319	1.00	35.46
	atom	3507	O	TYR	452	50.795	5.173	20.975	1.00	34.31
	atom	3508	N	SER	453	51.339	7.067	22.074	1.00	34.30
20	atom	3509	CA	SER	453	52.563	6.500	22.581	1.00	38.03
	atom	3510	CB	SER	453	53.733	7.413	22.256	1.00	41.05
	atom	3511	OG	SER	453	54.223	7.101	20.955	1.00	47.23
	atom	3512	C	SER	453	52.405	6.315	24.078	1.00	35.40
	atom	3513	O	SER	453	52.534	7.261	24.846	1.00	35.22
25	atom	3514	N	ILE	454	52.109	5.084	24.476	1.00	33.48
	atom	3515	CA	ILE	454	51.903	4.767	25.877	1.00	36.42
	atom	3516	CB	ILE	454	50.510	4.148	26.088	1.00	36.41
	atom	3517	CG2	ILE	454	50.079	4.305	27.540	1.00	33.83
	atom	3518	CG1	ILE	454	49.514	4.827	25.157	1.00	35.30
30	atom	3519	CD1	ILE	454	48.079	4.660	25.578	1.00	44.75
	atom	3520	C	ILE	454	52.938	3.818	26.461	1.00	37.22
	atom	3521	O	ILE	454	53.294	2.806	25.854	1.00	38.43
	atom	3522	N	GLU	455	53.417	4.153	27.654	1.00	38.85
	atom	3523	CA	GLU	455	54.386	3.317	28.343	1.00	37.89
35	atom	3524	CB	GLU	455	55.300	4.174	29.215	1.00	44.07

	atom	3525	CG	GLU	455	56.360	3.369	29.960	1.00	54.04
	atom	3526	CD	GLU	455	57.480	4.247	30.509	1.00	61.38
	atom	3527	OE1	GLU	455	57.521	5.453	30.145	1.00	60.82
	atom	3528	OE2	GLU	455	58.313	3.730	31.300	1.00	58.53
5	atom	3529	C	GLU	455	53.602	2.351	29.216	1.00	33.96
	atom	3530	O	GLU	455	52.775	2.765	30.026	1.00	31.59
	atom	3531	N	PRO	456	53.844	1.045	29.061	1.00	32.69
	atom	3532	CD	PRO	456	54.779	0.431	28.107	1.00	31.89
	atom	3533	CA	PRO	456	53.117	0.056	29.870	1.00	34.87
10	atom	3534	CB	PRO	456	53.615	-1.300	29.346	1.00	31.61
	atom	3535	CG	PRO	456	54.819	-1.005	28.540	1.00	31.68
	atom	3536	C	PRO	456	53.241	0.186	31.404	1.00	35.06
	atom	3537	O	PRO	456	52.373	-0.286	32.150	1.00	35.96
	atom	3538	N	LEU	457	54.302	0.826	31.880	1.00	31.41
15	atom	3539	CA	LEU	457	54.464	0.990	33.318	1.00	31.83
	atom	3540	CB	LEU	457	55.936	1.214	33.668	1.00	21.51
	atom	3541	CG	LEU	457	56.746	-0.081	33.628	1.00	22.27
	atom	3542	CD1	LEU	457	58.182	0.232	33.223	1.00	18.61
	atom	3543	CD2	LEU	457	56.697	-0.781	34.997	1.00	22.63
20	atom	3544	C	LEU	457	53.603	2.147	33.841	1.00	33.12
	atom	3545	O	LEU	457	53.574	2.425	35.046	1.00	36.08
	atom	3546	N	ASP	458	52.899	2.812	32.932	1.00	33.35
	atom	3547	CA	ASP	458	52.026	3.920	33.306	1.00	31.48
	atom	3548	CB	ASP	458	52.074	5.004	32.219	1.00	31.92
25	atom	3549	CG	ASP	458	53.235	5.977	32.401	1.00	35.20
	atom	3550	OD1	ASP	458	53.988	5.831	33.385	1.00	40.06
	atom	3551	OD2	ASP	458	53.398	6.891	31.562	1.00	32.72
	atom	3552	C	ASP	458	50.579	3.402	33.492	1.00	30.57
	atom	3553	O	ASP	458	49.716	4.104	34.020	1.00	29.93
30	atom	3554	N	LEU	459	50.337	2.160	33.079	1.00	29.54
	atom	3555	CA	LEU	459	49.011	1.552	33.172	1.00	32.41
	atom	3556	CB	LEU	459	49.097	0.036	32.962	1.00	31.91
	atom	3557	CG	LEU	459	48.435	-0.559	31.712	1.00	31.59
	atom	3558	CD1	LEU	459	47.692	0.510	30.923	1.00	30.88
35	atom	3559	CD2	LEU	459	49.508	-1.226	30.839	1.00	33.41
	atom	3560	C	LEU	459	48.187	1.837	34.422	1.00	31.36

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5	atom	3561	O	LEU	459	47.092	2.379	34.314	1.00	35.42
	atom	3562	N	PRO	460	48.680	1.471	35.618	1.00	31.69
	atom	3563	CD	PRO	460	49.948	0.798	35.949	1.00	37.70
	atom	3564	CA	PRO	460	47.893	1.742	36.824	1.00	31.94
	atom	3565	CB	PRO	460	48.867	1.443	37.961	1.00	34.04
	atom	3566	CG	PRO	460	49.768	0.421	37.403	1.00	34.31
	atom	3567	C	PRO	460	47.370	3.172	36.869	1.00	31.06
	atom	3568	O	PRO	460	46.207	3.404	37.171	1.00	32.13
10	atom	3569	N	GLN	461	48.240	4.122	36.559	1.00	34.11
	atom	3570	CA	GLN	461	47.877	5.542	36.539	1.00	38.17
	atom	3571	CB	GLN	461	49.088	6.398	36.121	1.00	38.18
	atom	3572	CG	GLN	461	50.311	6.252	37.023	1.00	42.90
	atom	3573	CD	GLN	461	51.124	5.006	36.725	1.00	46.75
15	atom	3574	OE1	GLN	461	50.761	3.892	37.128	1.00	47.13
	atom	3575	NE2	GLN	461	52.237	5.186	36.018	1.00	48.03
	atom	3576	C	GLN	461	46.734	5.780	35.549	1.00	34.45
	atom	3577	O	GLN	461	45.742	6.418	35.873	1.00	33.29
	atom	3578	N	ILE	462	46.894	5.256	34.340	1.00	30.87
20	atom	3579	CA	ILE	462	45.895	5.408	33.289	1.00	28.05
	atom	3580	CB	ILE	462	46.406	4.806	31.963	1.00	28.23
	atom	3581	CG2	ILE	462	45.305	4.784	30.928	1.00	21.36
	atom	3582	CG1	ILE	462	47.603	5.621	31.466	1.00	28.26
	atom	3583	CD1	ILE	462	48.241	5.073	30.227	1.00	30.74
25	atom	3584	C	ILE	462	44.607	4.712	33.688	1.00	27.56
	atom	3585	O	ILE	462	43.534	5.332	33.726	1.00	27.06
	atom	3586	N	ILE	463	44.725	3.424	33.996	1.00	22.72
	atom	3587	CA	ILE	463	43.574	2.636	34.400	1.00	20.93
	atom	3588	CB	ILE	463	44.003	1.216	34.896	1.00	21.25
30	atom	3589	CG2	ILE	463	42.817	0.479	35.517	1.00	18.27
	atom	3590	CG1	ILE	463	44.537	0.396	33.715	1.00	16.48
	atom	3591	CD1	ILE	463	45.126	-0.924	34.099	1.00	9.67
	atom	3592	C	ILE	463	42.758	3.351	35.480	1.00	19.90
	atom	3593	O	ILE	463	41.537	3.416	35.375	1.00	22.61
35	atom	3594	N	GLU	464	43.418	3.903	36.497	1.00	22.67
	atom	3595	CA	GLU	464	42.710	4.592	37.581	1.00	23.09
	atom	3596	CB	GLU	464	43.654	4.981	38.726	1.00	22.31

5	atom	3597	CG	GLU	464	42.882	5.206	40.033	1.00	24.89
	atom	3598	CD	GLU	464	43.508	6.229	40.954	1.00	22.17
	atom	3599	OE1	GLU	464	43.109	7.406	40.905	1.00	31.72
	atom	3600	OE2	GLU	464	44.390	5.865	41.738	1.00	16.70
	atom	3601	C	GLU	464	41.959	5.840	37.132	1.00	25.17
	atom	3602	O	GLU	464	40.845	6.102	37.610	1.00	21.06
	atom	3603	N	ARG	465	42.562	6.609	36.225	1.00	24.41
	atom	3604	CA	ARG	465	41.920	7.818	35.729	1.00	25.52
10	atom	3605	CB	ARG	465	42.908	8.681	34.943	1.00	31.25
	atom	3606	CG	ARG	465	43.219	10.019	35.642	1.00	39.07
	atom	3607	CD	ARG	465	42.685	11.216	34.860	1.00	43.22
	atom	3608	NE	ARG	465	43.641	12.326	34.767	1.00	47.82
15	atom	3609	CZ	ARG	465	44.942	12.198	34.504	1.00	50.16
	atom	3610	NH1	ARG	465	45.481	11.002	34.303	1.00	51.31
	atom	3611	NH2	ARG	465	45.711	13.276	34.421	1.00	50.41
	atom	3612	C	ARG	465	40.700	7.524	34.864	1.00	22.97
	atom	3613	O	ARG	465	39.681	8.210	34.986	1.00	17.94
	atom	3614	N	LEU	466	40.800	6.486	34.031	1.00	19.59
	atom	3615	CA	LEU	466	39.729	6.087	33.122	1.00	24.29
	atom	3616	CB	LEU	466	40.314	5.360	31.904	1.00	22.68
20	atom	3617	CG	LEU	466	41.009	6.289	30.905	1.00	31.93
	atom	3618	CD1	LEU	466	41.374	5.545	29.624	1.00	31.87
	atom	3619	CD2	LEU	466	40.074	7.457	30.599	1.00	36.14
	atom	3620	C	LEU	466	38.609	5.227	33.692	1.00	27.95
25	atom	3621	O	LEU	466	37.461	5.286	33.219	1.00	30.02
	atom	3622	N	HIS	467	38.923	4.420	34.693	1.00	26.38
	atom	3623	CA	HIS	467	37.901	3.554	35.240	1.00	28.67
	atom	3624	CB	HIS	467	38.215	2.094	34.905	1.00	28.83
30	atom	3625	CG	HIS	467	38.546	1.853	33.465	1.00	28.42
	atom	3626	CD2	HIS	467	39.716	1.958	32.789	1.00	28.48
	atom	3627	ND1	HIS	467	37.620	1.385	32.557	1.00	29.37
	atom	3628	CE1	HIS	467	38.205	1.209	31.386	1.00	23.72
	atom	3629	NE2	HIS	467	39.478	1.549	31.501	1.00	26.25
	atom	3630	C	HIS	467	37.681	3.673	36.734	1.00	28.76
35	atom	3631	O	HIS	467	36.669	3.188	37.246	1.00	31.17
	atom	3632	N	GLY	468	38.611	4.313	37.435	1.00	27.32

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	atom	3633	CA	GLY	468	38.475	4.421	38.875	1.00	24.96
	atom	3634	C	GLY	468	39.180	3.265	39.570	1.00	26.11
	atom	3635	O	GLY	468	39.347	2.187	38.992	1.00	20.04
	atom	3636	N	LEU	469	39.604	3.504	40.810	1.00	28.32
5	atom	3637	CA	LEU	469	40.303	2.506	41.619	1.00	31.09
	atom	3638	CB	LEU	469	40.497	3.027	43.050	1.00	34.04
	atom	3639	CG	LEU	469	41.631	2.433	43.893	1.00	33.39
	atom	3640	CD1	LEU	469	42.976	2.827	43.310	1.00	29.13
	atom	3641	CD2	LEU	469	41.509	2.939	45.332	1.00	36.67
10	atom	3642	C	LEU	469	39.572	1.177	41.669	1.00	30.69
	atom	3643	O	LEU	469	40.203	0.121	41.757	1.00	32.77
	atom	3644	N	SER	470	38.243	1.240	41.617	1.00	28.25
	atom	3645	CA	SER	470	37.399	0.050	41.658	1.00	26.30
	atom	3646	CB	SER	470	35.967	0.416	41.294	1.00	29.68
15	atom	3647	OG	SER	470	35.871	0.665	39.903	1.00	32.61
	atom	3648	C	SER	470	37.896	-0.988	40.677	1.00	26.83
	atom	3649	O	SER	470	37.786	-2.187	40.908	1.00	29.66
	atom	3650	N	ALA	471	38.433	-0.501	39.569	1.00	27.16
	atom	3651	CA	ALA	471	38.957	-1.346	38.518	1.00	25.29
20	atom	3652	CB	ALA	471	39.607	-0.481	37.436	1.00	23.68
	atom	3653	C	ALA	471	39.970	-2.327	39.081	1.00	24.06
	atom	3654	O	ALA	471	40.142	-3.416	38.556	1.00	21.95
	atom	3655	N	PHE	472	40.648	-1.940	40.151	1.00	22.90
	atom	3656	CA	PHE	472	41.631	-2.831	40.745	1.00	22.67
25	atom	3657	CB	PHE	472	42.758	-2.010	41.375	1.00	21.44
	atom	3658	CG	PHE	472	43.412	-1.035	40.424	1.00	22.73
	atom	3659	CD1	PHE	472	43.519	0.321	40.750	1.00	25.96
	atom	3660	CD2	PHE	472	43.936	-1.467	39.207	1.00	22.57
	atom	3661	CE1	PHE	472	44.145	1.241	39.863	1.00	24.45
30	atom	3662	CE2	PHE	472	44.567	-0.560	38.312	1.00	19.58
	atom	3663	CZ	PHE	472	44.668	0.791	38.642	1.00	18.43
	atom	3664	C	PHE	472	41.045	-3.806	41.780	1.00	19.61
	atom	3665	O	PHE	472	41.796	-4.509	42.433	1.00	20.06
	atom	3666	N	SER	473	39.717	-3.887	41.889	1.00	17.33
35	atom	3667	CA	SER	473	39.087	-4.771	42.864	1.00	19.26
	atom	3668	CB	SER	473	38.894	-4.015	44.182	1.00	15.31

5	atom	3669	OG	SER	473	39.568	-2.768	44.152	1.00	22.47
	atom	3670	C	SER	473	37.747	-5.447	42.501	1.00	24.97
	atom	3671	O	SER	473	37.088	-6.025	43.390	1.00	26.79
	atom	3672	N	LEU	474	37.322	-5.384	41.239	1.00	19.87
	atom	3673	CA	LEU	474	36.064	-6.032	40.853	1.00	17.55
	atom	3674	CB	LEU	474	35.741	-5.734	39.398	1.00	16.67
	atom	3675	CG	LEU	474	35.419	-4.253	39.139	1.00	19.81
	atom	3676	CD1	LEU	474	35.037	-4.078	37.684	1.00	16.66
10	atom	3677	CD2	LEU	474	34.284	-3.777	40.027	1.00	19.28
	atom	3678	C	LEU	474	36.195	-7.544	41.097	1.00	16.76
	atom	3679	O	LEU	474	37.261	-8.115	40.867	1.00	14.80
	atom	3680	N	HIS	475	35.122	-8.183	41.577	1.00	17.09
15	atom	3681	CA	HIS	475	35.189	-9.595	41.917	1.00	20.48
	atom	3682	CB	HIS	475	35.651	-9.737	43.382	1.00	23.75
	atom	3683	CG	HIS	475	34.738	-9.069	44.373	1.00	23.68
	atom	3684	CD2	HIS	475	34.748	-7.811	44.893	1.00	23.89
	atom	3685	ND1	HIS	475	33.598	-9.668	44.857	1.00	15.87
	atom	3686	CE1	HIS	475	32.939	-8.815	45.623	1.00	18.64
	atom	3687	NE2	HIS	475	33.619	-7.680	45.660	1.00	17.92
	atom	3688	C	HIS	475	33.972	-10.490	41.703	1.00	23.35
20	atom	3689	O	HIS	475	34.113	-11.667	41.395	1.00	32.81
	atom	3690	N	SER	476	32.772	-9.986	41.864	1.00	23.75
	atom	3691	CA	SER	476	31.647	-10.896	41.683	1.00	25.31
	atom	3692	CB	SER	476	30.632	-10.674	42.808	1.00	25.03
25	atom	3693	OG	SER	476	31.256	-10.944	44.047	1.00	25.05
	atom	3694	C	SER	476	31.016	-10.707	40.311	1.00	26.91
	atom	3695	O	SER	476	29.891	-10.203	40.189	1.00	21.63
	atom	3696	N	TYR	477	31.774	-11.114	39.287	1.00	27.12
30	atom	3697	CA	TYR	477	31.382	-10.999	37.888	1.00	20.57
	atom	3698	CB	TYR	477	32.517	-11.476	36.980	1.00	19.34
	atom	3699	CG	TYR	477	33.662	-10.492	36.852	1.00	18.80
	atom	3700	CD1	TYR	477	34.885	-10.722	37.514	1.00	19.07
35	atom	3701	CE1	TYR	477	35.955	-9.831	37.400	1.00	13.98
	atom	3702	CD2	TYR	477	33.541	-9.339	36.067	1.00	13.86
	atom	3703	CE2	TYR	477	34.615	-8.434	35.942	1.00	13.49
	atom	3704	CZ	TYR	477	35.817	-8.689	36.612	1.00	16.89

5	atom	3705	OH	TYR	477	36.878	-7.817	36.501	1.00	14.53
	atom	3706	C	TYR	477	30.126	-11.777	37.577	1.00	21.86
	atom	3707	O	TYR	477	29.913	-12.852	38.113	1.00	16.61
	atom	3708	N	SER	478	29.304	-11.219	36.686	1.00	25.77
	atom	3709	CA	SER	478	28.030	-11.820	36.285	1.00	27.29
	atom	3710	CB	SER	478	27.289	-10.875	35.339	1.00	28.80
	atom	3711	OG	SER	478	27.483	-9.522	35.731	1.00	40.31
	atom	3712	C	SER	478	28.165	-13.186	35.628	1.00	27.44
	atom	3713	O	SER	478	29.099	-13.423	34.876	1.00	31.57
	10	atom	3714	N	PRO	479	27.229	-14.109	35.910	1.00
	atom	3715	CD	PRO	479	26.087	-13.974	36.828	1.00	22.83
	atom	3716	CA	PRO	479	27.286	-15.450	35.314	1.00	21.99
	atom	3717	CB	PRO	479	26.038	-16.131	35.859	1.00	21.63
	atom	3718	CG	PRO	479	25.779	-15.415	37.166	1.00	24.95
	15	atom	3719	C	PRO	479	27.302	-15.373	33.790	1.00
	atom	3720	O	PRO	479	27.898	-16.206	33.104	1.00	16.28
	atom	3721	N	GLY	480	26.642	-14.362	33.253	1.00	25.56
	atom	3722	CA	GLY	480	26.652	-14.222	31.808	1.00	30.51
	atom	3723	C	GLY	480	28.071	-13.966	31.315	1.00	29.37
	20	atom	3724	O	GLY	480	28.544	-14.612	30.382	1.00
	atom	3725	N	GLU	481	28.757	-13.031	31.971	1.00	28.12
	atom	3726	CA	GLU	481	30.112	-12.654	31.609	1.00	23.84
	atom	3727	CB	GLU	481	30.521	-11.414	32.406	1.00	20.37
	atom	3728	CG	GLU	481	31.903	-10.903	32.070	1.00	21.27
	25	atom	3729	CD	GLU	481	31.929	-10.215	30.731	1.00
	atom	3730	OE1	GLU	481	30.873	-10.180	30.074	1.00	20.91
	atom	3731	OE2	GLU	481	32.994	-9.713	30.343	1.00	14.84
	atom	3732	C	GLU	481	31.123	-13.782	31.811	1.00	23.04
	atom	3733	O	GLU	481	31.966	-14.028	30.958	1.00	25.54
	30	atom	3734	N	ILE	482	31.040	-14.470	32.937	1.00
	atom	3735	CA	ILE	482	31.963	-15.565	33.220	1.00	22.76
	atom	3736	CB	ILE	482	31.638	-16.214	34.601	1.00	19.81
	atom	3737	CG2	ILE	482	32.395	-17.523	34.778	1.00	15.83
	atom	3738	CG1	ILE	482	32.010	-15.250	35.739	1.00	23.83
	35	atom	3739	CD1	ILE	482	31.125	-15.395	36.991	1.00
	atom	3740	C	ILE	482	31.881	-16.636	32.132	1.00	22.80

	atom	3741	O	ILE	482	32.896	-17.185	31.692	1.00	19.29
	atom	3742	N	ASN	483	30.659	-16.923	31.699	1.00	24.99
	atom	3743	CA	ASN	483	30.435	-17.945	30.698	1.00	26.00
	atom	3744	CB	ASN	483	28.969	-18.345	30.716	1.00	28.37
5	atom	3745	CG	ASN	483	28.590	-19.073	32.002	1.00	31.91
	atom	3746	OD1	ASN	483	27.471	-18.946	32.500	1.00	30.31
	atom	3747	ND2	ASN	483	29.530	-19.841	32.542	1.00	29.92
	atom	3748	C	ASN	483	30.877	-17.563	29.300	1.00	26.60
	atom	3749	O	ASN	483	31.177	-18.434	28.497	1.00	30.66
10	atom	3750	N	ARG	484	30.902	-16.271	28.997	1.00	27.04
	atom	3751	CA	ARG	484	31.363	-15.830	27.687	1.00	27.37
	atom	3752	CB	ARG	484	31.201	-14.317	27.520	1.00	26.13
	atom	3753	CG	ARG	484	30.361	-13.921	26.325	1.00	21.21
	atom	3754	CD	ARG	484	30.981	-12.821	25.556	1.00	17.82
15	atom	3755	NE	ARG	484	31.222	-11.629	26.361	1.00	19.84
	atom	3756	CZ	ARG	484	30.484	-10.531	26.282	1.00	18.20
	atom	3757	NH1	ARG	484	29.462	-10.472	25.447	1.00	22.95
	atom	3758	NH2	ARG	484	30.792	-9.477	27.005	1.00	17.83
	atom	3759	C	ARG	484	32.841	-16.174	27.637	1.00	26.63
20	atom	3760	O	ARG	484	33.268	-17.021	26.861	1.00	27.51
	atom	3761	N	VAL	485	33.612	-15.507	28.491	1.00	25.94
	atom	3762	CA	VAL	485	35.048	-15.721	28.581	1.00	20.15
	atom	3763	CB	VAL	485	35.633	-15.070	29.836	1.00	21.83
	atom	3764	CG1	VAL	485	37.121	-15.461	29.970	1.00	13.97
25	atom	3765	CG2	VAL	485	35.419	-13.566	29.793	1.00	7.66
	atom	3766	C	VAL	485	35.399	-17.191	28.660	1.00	19.86
	atom	3767	O	VAL	485	36.117	-17.710	27.815	1.00	21.45
	atom	3768	N	ALA	486	34.900	-17.847	29.699	1.00	20.86
	atom	3769	CA	ALA	486	35.175	-19.265	29.928	1.00	23.05
30	atom	3770	CB	ALA	486	34.380	-19.781	31.157	1.00	16.74
	atom	3771	C	ALA	486	34.888	-20.127	28.704	1.00	19.32
	atom	3772	O	ALA	486	35.545	-21.134	28.492	1.00	18.46
	atom	3773	N	SER	487	33.898	-19.746	27.910	1.00	23.08
	atom	3774	CA	SER	487	33.594	-20.493	26.699	1.00	25.52
35	atom	3775	CB	SER	487	32.197	-20.141	26.176	1.00	26.82
	atom	3776	OG	SER	487	31.572	-21.282	25.597	1.00	32.23

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	atom	3777	C	SER	487	34.642	-20.132	25.646	1.00	23.85
	atom	3778	O	SER	487	35.121	-20.981	24.903	1.00	30.98
	atom	3779	N	CYS	488	35.004	-18.865	25.584	1.00	20.37
	atom	3780	CA	CYS	488	35.991	-18.441	24.617	1.00	21.95
5	atom	3781	CB	CYS	488	36.079	-16.918	24.589	1.00	27.12
	atom	3782	SG	CYS	488	37.671	-16.295	23.964	1.00	35.96
	atom	3783	C	CYS	488	37.374	-19.017	24.911	1.00	22.98
	atom	3784	O	CYS	488	38.218	-19.080	24.019	1.00	16.47
	atom	3785	N	LEU	489	37.629	-19.425	26.153	1.00	21.12
10	atom	3786	CA	LEU	489	38.949	-19.966	26.456	1.00	24.98
	atom	3787	CB	LEU	489	39.232	-19.926	27.959	1.00	23.49
	atom	3788	CG	LEU	489	39.134	-18.554	28.631	1.00	24.48
	atom	3789	CD1	LEU	489	39.791	-18.618	30.008	1.00	27.39
	atom	3790	CD2	LEU	489	39.794	-17.494	27.765	1.00	15.03
15	atom	3791	C	LEU	489	39.055	-21.382	25.912	1.00	28.28
	atom	3792	O	LEU	489	40.080	-21.754	25.336	1.00	28.63
	atom	3793	N	ARG	490	37.987	-22.162	26.077	1.00	29.70
	atom	3794	CA	ARG	490	37.972	-23.531	25.559	1.00	35.67
	atom	3795	CB	ARG	490	36.630	-24.241	25.837	1.00	34.47
20	atom	3796	CG	ARG	490	35.916	-23.839	27.102	1.00	39.26
	atom	3797	CD	ARG	490	36.649	-24.331	28.330	1.00	46.84
	atom	3798	NE	ARG	490	37.425	-25.530	28.036	1.00	49.75
	atom	3799	CZ	ARG	490	38.709	-25.685	28.338	1.00	48.63
	atom	3800	NH1	ARG	490	39.375	-24.709	28.953	1.00	50.68
25	atom	3801	NH2	ARG	490	39.324	-26.813	28.015	1.00	45.57
	atom	3802	C	ARG	490	38.173	-23.455	24.042	1.00	33.22
	atom	3803	O	ARG	490	39.071	-24.085	23.488	1.00	34.18
	atom	3804	N	LYS	491	37.331	-22.651	23.396	1.00	33.18
	atom	3805	CA	LYS	491	37.350	-22.469	21.949	1.00	30.62
30	atom	3806	CB	LYS	491	36.399	-21.339	21.551	1.00	31.61
	atom	3807	CG	LYS	491	36.178	-21.210	20.053	1.00	23.96
	atom	3808	CD	LYS	491	36.306	-19.782	19.606	1.00	19.54
	atom	3809	CE	LYS	491	34.973	-19.080	19.677	1.00	17.94
	atom	3810	NZ	LYS	491	35.126	-17.705	20.232	1.00	17.67
35	atom	3811	C	LYS	491	38.722	-22.181	21.384	1.00	29.09
	atom	3812	O	LYS	491	39.187	-22.897	20.503	1.00	35.24

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	atom	3813	N	LEU	492	39.369	-21.138	21.893	1.00	24.34
	atom	3814	CA	LEU	492	40.679	-20.755	21.401	1.00	19.50
	atom	3815	CB	LEU	492	40.993	-19.286	21.743	1.00	19.76
	atom	3816	CG	LEU	492	40.131	-18.223	21.032	1.00	21.61
5	atom	3817	CD1	LEU	492	40.670	-16.834	21.255	1.00	14.82
	atom	3818	CD2	LEU	492	40.088	-18.522	19.560	1.00	20.60
	atom	3819	C	LEU	492	41.763	-21.639	21.949	1.00	19.62
	atom	3820	O	LEU	492	42.872	-21.679	21.413	1.00	19.94
	atom	3821	N	GLY	493	41.447	-22.362	23.014	1.00	20.58
10	atom	3822	CA	GLY	493	42.451	-23.220	23.615	1.00	15.08
	atom	3823	C	GLY	493	43.358	-22.412	24.528	1.00	17.40
	atom	3824	O	GLY	493	44.549	-22.733	24.699	1.00	12.58
	atom	3825	N	VAL	494	42.811	-21.332	25.085	1.00	18.23
	atom	3826	CA	VAL	494	43.567	-20.505	26.029	1.00	24.48
15	atom	3827	CB	VAL	494	42.927	-19.093	26.182	1.00	25.08
	atom	3828	CG1	VAL	494	43.639	-18.302	27.263	1.00	19.85
	atom	3829	CG2	VAL	494	43.032	-18.344	24.869	1.00	23.44
	atom	3830	C	VAL	494	43.523	-21.267	27.369	1.00	21.96
	atom	3831	O	VAL	494	42.544	-21.966	27.650	1.00	23.77
20	atom	3832	N	PRO	495	44.591	-21.193	28.180	1.00	19.53
	atom	3833	CD	PRO	495	45.876	-20.502	27.998	1.00	22.34
	atom	3834	CA	PRO	495	44.532	-21.925	29.452	1.00	23.72
	atom	3835	CB	PRO	495	45.966	-21.847	29.992	1.00	22.00
	atom	3836	CG	PRO	495	46.564	-20.672	29.327	1.00	22.88
25	atom	3837	C	PRO	495	43.495	-21.359	30.428	1.00	24.18
	atom	3838	O	PRO	495	43.237	-20.166	30.425	1.00	26.06
	atom	3839	N	PRO	496	42.867	-22.227	31.253	1.00	29.06
	atom	3840	CD	PRO	496	43.117	-23.682	31.251	1.00	29.39
	atom	3841	CA	PRO	496	41.843	-21.870	32.256	1.00	26.64
30	atom	3842	CB	PRO	496	41.639	-23.175	33.025	1.00	26.28
	atom	3843	CG	PRO	496	41.942	-24.230	32.014	1.00	27.86
	atom	3844	C	PRO	496	42.220	-20.709	33.191	1.00	24.39
	atom	3845	O	PRO	496	43.382	-20.560	33.560	1.00	25.02
	atom	3846	N	LEU	497	41.235	-19.901	33.580	1.00	22.77
35	atom	3847	CA	LEU	497	41.479	-18.762	34.476	1.00	25.05
	atom	3848	CB	LEU	497	40.174	-18.055	34.832	1.00	22.12

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5	atom	3849	CG	LEU	497	39.459	-17.316	33.694	1.00	24.99
	atom	3850	CD1	LEU	497	37.983	-17.213	34.013	1.00	10.42
	atom	3851	CD2	LEU	497	40.089	-15.948	33.486	1.00	22.67
	atom	3852	C	LEU	497	42.171	-19.192	35.767	1.00	28.83
	atom	3853	O	LEU	497	43.112	-18.534	36.231	1.00	30.24
10	atom	3854	N	ARG	498	41.709	-20.291	36.354	1.00	28.96
	atom	3855	CA	ARG	498	42.318	-20.776	37.585	1.00	31.80
	atom	3856	CB	ARG	498	41.849	-22.192	37.881	1.00	33.41
	atom	3857	CG	ARG	498	42.803	-23.240	37.364	1.00	36.66
	atom	3858	CD	ARG	498	42.101	-24.168	36.443	1.00	34.50
15	atom	3859	NE	ARG	498	41.020	-24.850	37.130	1.00	35.78
	atom	3860	CZ	ARG	498	40.765	-26.148	37.006	1.00	41.82
	atom	3861	NH1	ARG	498	41.523	-26.904	36.215	1.00	41.86
	atom	3862	NH2	ARG	498	39.751	-26.691	37.672	1.00	40.78
	atom	3863	C	ARG	498	43.829	-20.769	37.416	1.00	30.31
20	atom	3864	O	ARG	498	44.561	-20.349	38.310	1.00	33.99
	atom	3865	N	VAL	499	44.285	-21.216	36.250	1.00	29.25
	atom	3866	CA	VAL	499	45.712	-21.278	35.947	1.00	31.50
	atom	3867	CB	VAL	499	45.972	-22.101	34.640	1.00	33.12
	atom	3868	CG1	VAL	499	47.390	-21.877	34.132	1.00	28.70
25	atom	3869	CG2	VAL	499	45.735	-23.587	34.906	1.00	31.44
	atom	3870	C	VAL	499	46.377	-19.901	35.829	1.00	31.96
	atom	3871	O	VAL	499	47.547	-19.753	36.190	1.00	35.00
	atom	3872	N	TRP	500	45.648	-18.901	35.324	1.00	31.77
	atom	3873	CA	TRP	500	46.198	-17.546	35.181	1.00	27.36
30	atom	3874	CB	TRP	500	45.277	-16.663	34.333	1.00	25.16
	atom	3875	CG	TRP	500	45.213	-17.041	32.882	1.00	26.28
	atom	3876	CD2	TRP	500	46.174	-16.737	31.862	1.00	26.06
	atom	3877	CE2	TRP	500	45.698	-17.303	30.658	1.00	27.61
	atom	3878	CE3	TRP	500	47.386	-16.039	31.846	1.00	29.91
35	atom	3879	CD1	TRP	500	44.225	-17.760	32.270	1.00	25.36
	atom	3880	NE1	TRP	500	44.510	-17.921	30.938	1.00	25.93
	atom	3881	CZ2	TRP	500	46.396	-17.200	29.451	1.00	30.21
	atom	3882	CZ3	TRP	500	48.083	-15.934	30.645	1.00	31.35
	atom	3883	CH2	TRP	500	47.583	-16.510	29.461	1.00	32.07
	atom	3884	C	TRP	500	46.366	-16.926	36.574	1.00	28.41

5	atom	3885	O	TRP	500	47.248	-16.073	36.803	1.00	23.28
	atom	3886	N	ARG	501	45.507	-17.361	37.496	1.00	27.19
	atom	3887	CA	ARG	501	45.556	-16.910	38.880	1.00	28.97
	atom	3888	CB	ARG	501	44.641	-17.780	39.747	1.00	37.11
	atom	3889	CG	ARG	501	43.168	-17.454	39.655	1.00	39.64
	atom	3890	CD	ARG	501	42.755	-16.596	40.834	1.00	51.11
	atom	3891	NE	ARG	501	41.304	-16.451	40.928	1.00	56.63
	atom	3892	CZ	ARG	501	40.664	-16.140	42.048	1.00	59.94
10	atom	3893	NH1	ARG	501	41.360	-15.942	43.162	1.00	60.33
	atom	3894	NH2	ARG	501	39.334	-16.048	42.059	1.00	58.22
	atom	3895	C	ARG	501	46.993	-17.084	39.359	1.00	28.69
	atom	3896	O	ARG	501	47.698	-16.119	39.671	1.00	26.56
15	atom	3897	N	HIS	502	47.425	-18.339	39.391	1.00	25.63
	atom	3898	CA	HIS	502	48.770	-18.675	39.831	1.00	28.17
	atom	3899	CB	HIS	502	48.879	-20.202	40.022	1.00	31.75
	atom	3900	CG	HIS	502	48.016	-20.733	41.133	1.00	36.89
	atom	3901	CD2	HIS	502	46.691	-20.583	41.387	1.00	40.38
20	atom	3902	ND1	HIS	502	48.513	-21.507	42.159	1.00	32.91
	atom	3903	CE1	HIS	502	47.535	-21.809	42.995	1.00	34.77
	atom	3904	NE2	HIS	502	46.419	-21.262	42.550	1.00	35.75
	atom	3905	C	HIS	502	49.858	-18.148	38.888	1.00	27.48
	atom	3906	O	HIS	502	50.984	-17.881	39.306	1.00	29.54
	atom	3907	N	ARG	503	49.540	-17.997	37.612	1.00	30.63
25	atom	3908	CA	ARG	503	50.531	-17.470	36.692	1.00	29.02
	atom	3909	CB	ARG	503	49.992	-17.498	35.259	1.00	29.73
	atom	3910	CG	ARG	503	50.645	-18.533	34.351	1.00	29.98
	atom	3911	CD	ARG	503	49.619	-19.560	33.919	1.00	30.05
	atom	3912	NE	ARG	503	50.134	-20.487	32.927	1.00	30.15
30	atom	3913	CZ	ARG	503	49.764	-20.485	31.652	1.00	33.95
	atom	3914	NH1	ARG	503	48.878	-19.599	31.222	1.00	38.59
	atom	3915	NH2	ARG	503	50.262	-21.376	30.808	1.00	32.53
	atom	3916	C	ARG	503	50.807	-16.033	37.134	1.00	28.79
35	atom	3917	O	ARG	503	51.964	-15.622	37.248	1.00	28.60
	atom	3918	N	ALA	504	49.732	-15.284	37.402	1.00	30.13
	atom	3919	CA	ALA	504	49.833	-13.880	37.832	1.00	29.74
	atom	3920	CB	ALA	504	48.439	-13.224	37.834	1.00	28.52

	atom	3921	C	ALA	504	50.513	-13.701	39.200	1.00	26.24
	atom	3922	O	ALA	504	51.160	-12.681	39.436	1.00	27.81
	atom	3923	N	ARG	505	50.353	-14.676	40.098	1.00	28.84
	atom	3924	CA	ARG	505	50.995	-14.634	41.419	1.00	27.37
5	atom	3925	CB	ARG	505	50.813	-15.971	42.154	1.00	28.29
	atom	3926	CG	ARG	505	50.326	-15.869	43.598	1.00	30.58
	atom	3927	CD	ARG	505	49.435	-17.057	43.992	1.00	28.65
	atom	3928	NE	ARG	505	48.048	-16.661	44.262	1.00	29.11
	atom	3929	CZ	ARG	505	47.034	-17.515	44.419	1.00	30.61
10	atom	3930	NH1	ARG	505	47.236	-18.825	44.334	1.00	34.91
	atom	3931	NH2	ARG	505	45.810	-17.065	44.661	1.00	32.55
	atom	3932	C	ARG	505	52.475	-14.410	41.148	1.00	26.98
	atom	3933	O	ARG	505	53.089	-13.495	41.697	1.00	29.63
	atom	3934	N	SER	506	53.027	-15.241	40.265	1.00	26.48
15	atom	3935	CA	SER	506	54.432	-15.173	39.884	1.00	26.79
	atom	3936	CB	SER	506	54.750	-16.256	38.866	1.00	28.06
	atom	3937	OG	SER	506	56.006	-15.995	38.278	1.00	33.56
	atom	3938	C	SER	506	54.889	-13.831	39.336	1.00	28.42
	atom	3939	O	SER	506	55.780	-13.212	39.912	1.00	36.05
20	atom	3940	N	VAL	507	54.292	-13.374	38.234	1.00	25.55
	atom	3941	CA	VAL	507	54.675	-12.090	37.639	1.00	20.31
	atom	3942	CB	VAL	507	53.732	-11.674	36.459	1.00	24.81
	atom	3943	CG1	VAL	507	54.470	-10.744	35.515	1.00	19.95
	atom	3944	CG2	VAL	507	53.214	-12.895	35.722	1.00	27.87
25	atom	3945	C	VAL	507	54.659	-10.936	38.640	1.00	20.26
	atom	3946	O	VAL	507	55.573	-10.094	38.630	1.00	18.17
	atom	3947	N	ARG	508	53.619	-10.889	39.483	1.00	16.63
	atom	3948	CA	ARG	508	53.476	-9.826	40.486	1.00	20.36
	atom	3949	CB	ARG	508	52.234	-10.048	41.358	1.00	22.81
30	atom	3950	CG	ARG	508	52.235	-9.227	42.625	1.00	21.60
	atom	3951	CD	ARG	508	50.998	-9.475	43.477	1.00	28.22
	atom	3952	NE	ARG	508	51.296	-9.361	44.911	1.00	37.21
	atom	3953	CZ	ARG	508	50.847	-8.379	45.689	1.00	38.38
	atom	3954	NH1	ARG	508	50.076	-7.423	45.175	1.00	46.52
35	atom	3955	NH2	ARG	508	51.169	-8.339	46.972	1.00	28.71
	atom	3956	C	ARG	508	54.691	-9.723	41.383	1.00	22.41

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	atom	3957	O	ARG	508	55.154	-8.626	41.671	1.00	22.27
	atom	3958	N	ALA	509	55.208	-10.866	41.829	1.00	24.91
	atom	3959	CA	ALA	509	56.389	-10.855	42.687	1.00	27.02
	atom	3960	CB	ALA	509	56.740	-12.276	43.144	1.00	22.60
5	atom	3961	C	ALA	509	57.560	-10.234	41.932	1.00	28.45
	atom	3962	O	ALA	509	58.210	-9.320	42.436	1.00	32.34
	atom	3963	N	ARG	510	57.829	-10.722	40.724	1.00	29.56
	atom	3964	CA	ARG	510	58.928	-10.180	39.924	1.00	30.26
	atom	3965	CB	ARG	510	58.978	-10.870	38.562	1.00	30.46
10	atom	3966	CG	ARG	510	58.777	-12.369	38.607	1.00	25.33
	atom	3967	CD	ARG	510	60.069	-13.055	38.961	1.00	28.12
	atom	3968	NE	ARG	510	59.879	-14.419	39.451	1.00	35.39
	atom	3969	CZ	ARG	510	60.226	-14.836	40.667	1.00	34.87
	atom	3970	NH1	ARG	510	60.784	-13.999	41.539	1.00	33.89
15	atom	3971	NH2	ARG	510	60.048	-16.105	41.001	1.00	36.28
	atom	3972	C	ARG	510	58.746	-8.670	39.729	1.00	32.22
	atom	3973	O	ARG	510	59.712	-7.909	39.697	1.00	34.67
	atom	3974	N	LEU	511	57.497	-8.234	39.602	1.00	33.14
	atom	3975	CA	LEU	511	57.211	-6.812	39.424	1.00	32.24
20	atom	3976	CB	LEU	511	55.755	-6.617	38.985	1.00	31.16
	atom	3977	CG	LEU	511	55.532	-6.888	37.492	1.00	30.87
	atom	3978	CD1	LEU	511	54.132	-7.401	37.266	1.00	19.45
	atom	3979	CD2	LEU	511	55.787	-5.611	36.708	1.00	25.52
	atom	3980	C	LEU	511	57.479	-6.017	40.701	1.00	31.18
25	atom	3981	O	LEU	511	58.169	-4.989	40.669	1.00	26.79
	atom	3982	N	LEU	512	56.928	-6.493	41.819	1.00	30.24
	atom	3983	CA	LEU	512	57.110	-5.819	43.108	1.00	32.29
	atom	3984	CB	LEU	512	56.482	-6.619	44.261	1.00	25.88
	atom	3985	CG	LEU	512	54.984	-6.940	44.299	1.00	26.51
30	atom	3986	CD1	LEU	512	54.716	-7.891	45.457	1.00	28.99
	atom	3987	CD2	LEU	512	54.165	-5.677	44.444	1.00	24.37
	atom	3988	C	LEU	512	58.594	-5.676	43.402	1.00	33.82
	atom	3989	O	LEU	512	59.094	-4.580	43.661	1.00	33.78
	atom	3990	N	SER	513	59.289	-6.803	43.335	1.00	34.94
35	atom	3991	CA	SER	513	60.711	-6.866	43.630	1.00	37.95
	atom	3992	CB	SER	513	61.138	-8.332	43.650	1.00	42.15

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	atom	3993	OG	SER	513	60.281	-9.073	44.514	1.00	45.41
	atom	3994	C	SER	513	61.644	-6.046	42.743	1.00	36.68
	atom	3995	O	SER	513	62.864	-6.162	42.849	1.00	35.08
	atom	3996	N	GLN	514	61.067	-5.206	41.891	1.00	37.16
5	atom	3997	CA	GLN	514	61.836	-4.358	40.983	1.00	37.50
	atom	3998	CB	GLN	514	61.248	-4.429	39.569	1.00	43.16
	atom	3999	CG	GLN	514	61.986	-5.334	38.574	1.00	46.16
	atom	4000	CD	GLN	514	61.951	-4.784	37.144	1.00	48.42
	atom	4001	OE1	GLN	514	61.409	-3.700	36.886	1.00	45.55
10	atom	4002	NE2	GLN	514	62.535	-5.531	36.211	1.00	43.64
	atom	4003	C	GLN	514	61.753	-2.922	41.483	1.00	37.67
	atom	4004	O	GLN	514	62.463	-2.039	41.007	1.00	35.72
	atom	4005	N	GLY	515	60.865	-2.697	42.446	1.00	38.87
	atom	4006	CA	GLY	515	60.689	-1.370	43.007	1.00	36.83
15	atom	4007	C	GLY	515	60.157	-0.355	42.012	1.00	36.39
	atom	4008	O	GLY	515	60.024	-0.650	40.827	1.00	37.60
	atom	4009	N	GLY	516	59.841	0.839	42.505	1.00	33.81
	atom	4010	CA	GLY	516	59.334	1.897	41.655	1.00	33.91
	atom	4011	C	GLY	516	58.143	1.533	40.794	1.00	38.28
20	atom	4012	O	GLY	516	57.298	0.722	41.181	1.00	38.92
	atom	4013	N	ARG	517	58.091	2.144	39.614	1.00	38.05
	atom	4014	CA	ARG	517	57.012	1.934	38.659	1.00	35.86
	atom	4015	CB	ARG	517	57.396	2.537	37.305	1.00	40.10
	atom	4016	CG	ARG	517	56.812	3.919	37.054	1.00	43.18
25	atom	4017	CD	ARG	517	56.079	3.950	35.735	1.00	47.23
	atom	4018	NE	ARG	517	56.470	5.105	34.939	1.00	54.17
	atom	4019	CZ	ARG	517	57.512	5.130	34.112	1.00	56.95
	atom	4020	NH1	ARG	517	58.279	4.056	33.965	1.00	58.23
	atom	4021	NH2	ARG	517	57.794	6.237	33.436	1.00	58.13
30	atom	4022	C	ARG	517	56.605	0.476	38.477	1.00	31.56
	atom	4023	O	ARG	517	55.414	0.160	38.475	1.00	34.95
	atom	4024	N	ALA	518	57.573	-0.419	38.328	1.00	25.19
	atom	4025	CA	ALA	518	57.228	-1.825	38.150	1.00	21.50
	atom	4026	CB	ALA	518	58.457	-2.630	37.885	1.00	11.56
35	atom	4027	C	ALA	518	56.480	-2.398	39.347	1.00	22.19
	atom	4028	O	ALA	518	55.663	-3.305	39.193	1.00	26.95

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5	atom	4029	N	ALA	519	56.768	-1.867	40.534	1.00	22.61
	atom	4030	CA	ALA	519	56.138	-2.303	41.782	1.00	19.97
	atom	4031	CB	ALA	519	56.867	-1.669	42.975	1.00	17.81
	atom	4032	C	ALA	519	54.656	-1.938	41.828	1.00	20.24
	atom	4033	O	ALA	519	53.810	-2.760	42.207	1.00	19.71
	atom	4034	N	THR	520	54.346	-0.697	41.453	1.00	19.16
	atom	4035	CA	THR	520	52.968	-0.221	41.453	1.00	21.36
	atom	4036	CB	THR	520	52.907	1.225	40.977	1.00	20.09
10	atom	4037	OG1	THR	520	53.970	1.952	41.595	1.00	23.76
	atom	4038	CG2	THR	520	51.582	1.868	41.356	1.00	18.61
	atom	4039	C	THR	520	52.059	-1.092	40.574	1.00	24.98
	atom	4040	O	THR	520	50.947	-1.434	40.984	1.00	25.03
15	atom	4041	N	CYS	521	52.541	-1.451	39.377	1.00	23.25
	atom	4042	CA	CYS	521	51.785	-2.288	38.431	1.00	21.68
	atom	4043	CB	CYS	521	52.573	-2.510	37.118	1.00	21.82
	atom	4044	SG	CYS	521	52.914	-1.044	36.097	1.00	17.89
	atom	4045	C	CYS	521	51.504	-3.643	39.054	1.00	20.51
20	atom	4046	O	CYS	521	50.398	-4.168	38.959	1.00	19.81
	atom	4047	N	GLY	522	52.529	-4.206	39.683	1.00	21.73
	atom	4048	CA	GLY	522	52.404	-5.504	40.317	1.00	21.72
	atom	4049	C	GLY	522	51.402	-5.544	41.453	1.00	23.41
	atom	4050	O	GLY	522	50.619	-6.497	41.589	1.00	22.54
	atom	4051	N	LYS	523	51.405	-4.492	42.256	1.00	21.41
25	atom	4052	CA	LYS	523	50.527	-4.425	43.406	1.00	21.80
	atom	4053	CB	LYS	523	51.148	-3.442	44.416	1.00	22.06
	atom	4054	CG	LYS	523	50.178	-2.735	45.320	1.00	22.90
	atom	4055	CD	LYS	523	50.911	-1.834	46.293	1.00	21.46
30	atom	4056	CE	LYS	523	49.933	-0.961	47.083	1.00	13.21
	atom	4057	NZ	LYS	523	50.606	0.324	47.409	1.00	23.93
	atom	4058	C	LYS	523	49.087	-4.048	43.023	1.00	22.07
	atom	4059	O	LYS	523	48.112	-4.609	43.533	1.00	21.31
	atom	4060	N	TYR	524	48.951	-3.117	42.093	1.00	23.53
	atom	4061	CA	TYR	524	47.624	-2.692	41.678	1.00	24.18
35	atom	4062	CB	TYR	524	47.707	-1.248	41.170	1.00	26.96
	atom	4063	CG	TYR	524	47.799	-0.222	42.292	1.00	31.99
	atom	4064	CD1	TYR	524	49.028	0.147	42.835	1.00	31.39

	atom	4065	CE1	TYR	524	49.108	1.041	43.892	1.00	31.53
	atom	4066	CD2	TYR	524	46.653	0.343	42.832	1.00	36.34
	atom	4067	CE2	TYR	524	46.720	1.238	43.891	1.00	35.33
	atom	4068	CZ	TYR	524	47.943	1.585	44.417	1.00	34.86
5	atom	4069	OH	TYR	524	47.983	2.452	45.486	1.00	30.70
	atom	4070	C	TYR	524	46.958	-3.618	40.629	1.00	25.33
	atom	4071	O	TYR	524	45.806	-4.043	40.792	1.00	22.85
	atom	4072	N	LEU	525	47.686	-3.956	39.570	1.00	20.76
	atom	4073	CA	LEU	525	47.109	-4.787	38.539	1.00	19.46
10	atom	4074	CB	LEU	525	47.957	-4.766	37.252	1.00	20.85
	atom	4075	CG	LEU	525	48.736	-3.549	36.746	1.00	18.37
	atom	4076	CD1	LEU	525	49.208	-3.846	35.334	1.00	19.62
	atom	4077	CD2	LEU	525	47.869	-2.316	36.731	1.00	23.39
	atom	4078	C	LEU	525	46.930	-6.227	38.957	1.00	19.55
15	atom	4079	O	LEU	525	46.037	-6.908	38.443	1.00	14.61
	atom	4080	N	PHE	526	47.759	-6.710	39.879	1.00	21.79
	atom	4081	CA	PHE	526	47.660	-8.129	40.239	1.00	22.87
	atom	4082	CB	PHE	526	48.976	-8.848	39.882	1.00	23.31
	atom	4083	CG	PHE	526	49.394	-8.686	38.425	1.00	25.42
20	atom	4084	CD1	PHE	526	50.444	-7.836	38.070	1.00	25.95
	atom	4085	CD2	PHE	526	48.741	-9.382	37.412	1.00	22.77
	atom	4086	CE1	PHE	526	50.830	-7.690	36.723	1.00	25.73
	atom	4087	CE2	PHE	526	49.129	-9.233	36.054	1.00	19.20
	atom	4088	CZ	PHE	526	50.166	-8.394	35.716	1.00	12.30
25	atom	4089	C	PHE	526	47.230	-8.493	41.645	1.00	19.74
	atom	4090	O	PHE	526	47.406	-9.626	42.077	1.00	20.87
	atom	4091	N	ASN	527	46.649	-7.540	42.351	1.00	20.80
	atom	4092	CA	ASN	527	46.168	-7.800	43.697	1.00	22.67
	atom	4093	CB	ASN	527	45.676	-6.503	44.329	1.00	21.32
30	atom	4094	CG	ASN	527	45.875	-6.480	45.820	1.00	27.69
	atom	4095	OD1	ASN	527	47.001	-6.622	46.320	1.00	26.48
	atom	4096	ND2	ASN	527	44.786	-6.298	46.550	1.00	22.52
	atom	4097	C	ASN	527	45.025	-8.824	43.661	1.00	26.89
	atom	4098	O	ASN	527	44.758	-9.504	44.654	1.00	29.14
35	atom	4099	N	TRP	528	44.360	-8.933	42.509	1.00	26.74
	atom	4100	CA	TRP	528	43.245	-9.863	42.334	1.00	22.63

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	atom	4101	CB	TRP	528	42.511	-9.588	40.999	1.00	23.42
	atom	4102	CG	TRP	528	43.373	-9.841	39.769	1.00	22.88
	atom	4103	CD2	TRP	528	43.737	-11.119	39.226	1.00	16.34
	atom	4104	CE2	TRP	528	44.716	-10.891	38.224	1.00	16.94
5	atom	4105	CE3	TRP	528	43.341	-12.430	39.493	1.00	16.31
	atom	4106	CD1	TRP	528	44.109	-8.909	39.074	1.00	21.03
	atom	4107	NE1	TRP	528	44.920	-9.533	38.151	1.00	20.51
	atom	4108	CZ2	TRP	528	45.307	-11.930	37.491	1.00	12.66
	atom	4109	CZ3	TRP	528	43.935	-13.478	38.757	1.00	22.18
10	atom	4110	CH2	TRP	528	44.908	-13.214	37.770	1.00	10.51
	atom	4111	C	TRP	528	43.770	-11.295	42.350	1.00	24.25
	atom	4112	O	TRP	528	43.006	-12.246	42.533	1.00	20.16
	atom	4113	N	ALA	529	45.081	-11.444	42.172	1.00	27.26
	atom	4114	CA	ALA	529	45.700	-12.772	42.137	1.00	28.52
15	atom	4115	CB	ALA	529	46.966	-12.742	41.293	1.00	19.41
	atom	4116	C	ALA	529	46.023	-13.306	43.523	1.00	30.29
	atom	4117	O	ALA	529	45.648	-14.427	43.861	1.00	35.11
	atom	4118	N	VAL	530	46.725	-12.507	44.317	1.00	33.55
	atom	4119	CA	VAL	530	47.103	-12.910	45.670	1.00	33.91
20	atom	4120	CB	VAL	530	47.857	-11.769	46.412	1.00	31.28
	atom	4121	CG1	VAL	530	48.789	-11.047	45.464	1.00	26.39
	atom	4122	CG2	VAL	530	46.874	-10.791	47.004	1.00	29.38
	atom	4123	C	VAL	530	45.875	-13.319	46.486	1.00	36.28
	atom	4124	O	VAL	530	44.759	-12.853	46.236	1.00	38.88
25	atom	4125	N	LYS	531	46.090	-14.191	47.465	1.00	38.17
	atom	4126	CA	LYS	531	45.017	-14.687	48.327	1.00	38.07
	atom	4127	CB	LYS	531	45.476	-15.987	48.995	1.00	39.85
	atom	4128	CG	LYS	531	46.671	-16.647	48.300	1.00	38.60
	atom	4129	CD	LYS	531	47.946	-15.836	48.534	1.00	43.75
30	atom	4130	CE	LYS	531	49.106	-16.300	47.666	1.00	42.42
	atom	4131	NZ	LYS	531	49.773	-17.500	48.247	1.00	43.42
	atom	4132	C	LYS	531	44.593	-13.644	49.378	1.00	36.13
	atom	4133	O	LYS	531	43.404	-13.304	49.494	1.00	36.59
	atom	4134	N	THR	532	45.560	-13.142	50.143	1.00	29.06
35	atom	4135	CA	THR	532	45.271	-12.122	51.142	1.00	26.83
	atom	4136	CB	THR	532	46.183	-12.237	52.362	1.00	27.27

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	atom	4137	OG1	THR	532	46.813	-13.520	52.364	1.00	35.92
	atom	4138	CG2	THR	532	45.371	-12.051	53.638	1.00	26.98
	atom	4139	C	THR	532	45.512	-10.779	50.479	1.00	23.15
	atom	4140	O	THR	532	46.638	-10.298	50.392	1.00	17.89
5	atom	4141	N	LYS	533	44.444	-10.161	50.019	1.00	24.30
	atom	4142	CA	LYS	533	44.610	-8.915	49.313	1.00	30.02
	atom	4143	CB	LYS	533	43.330	-8.601	48.543	1.00	34.16
	atom	4144	CG	LYS	533	43.261	-9.297	47.186	1.00	42.24
	atom	4145	CD	LYS	533	41.884	-9.901	46.917	1.00	44.15
10	atom	4146	CE	LYS	533	41.955	-11.415	46.751	1.00	46.89
	atom	4147	NZ	LYS	533	41.927	-11.827	45.328	1.00	43.79
	atom	4148	C	LYS	533	44.993	-7.746	50.186	1.00	30.92
	atom	4149	O	LYS	533	44.629	-7.697	51.363	1.00	34.83
	atom	4150	N	LEU	534	45.748	-6.809	49.613	1.00	32.89
15	atom	4151	CA	LEU	534	46.119	-5.607	50.338	1.00	32.08
	atom	4152	CB	LEU	534	47.526	-5.142	49.986	1.00	30.92
	atom	4153	CG	LEU	534	48.112	-5.387	48.608	1.00	35.03
	atom	4154	CD1	LEU	534	47.865	-4.160	47.762	1.00	33.89
	atom	4155	CD2	LEU	534	49.621	-5.677	48.725	1.00	32.33
20	atom	4156	C	LEU	534	45.101	-4.549	49.960	1.00	34.40
	atom	4157	O	LEU	534	44.462	-4.653	48.919	1.00	34.91
	atom	4158	N	LYS	535	44.925	-3.551	50.824	1.00	37.40
	atom	4159	CA	LYS	535	43.961	-2.480	50.580	1.00	34.10
	atom	4160	CB	LYS	535	43.499	-1.866	51.911	1.00	36.92
25	atom	4161	CG	LYS	535	41.986	-1.841	52.114	1.00	38.59
	atom	4162	CD	LYS	535	41.402	-0.439	51.877	1.00	44.81
	atom	4163	CE	LYS	535	41.745	0.537	53.041	1.00	48.73
	atom	4164	NZ	LYS	535	41.791	2.007	52.687	1.00	35.50
	atom	4165	C	LYS	535	44.569	-1.399	49.695	1.00	33.67
30	atom	4166	O	LYS	535	45.465	-0.651	50.111	1.00	33.50
	atom	4167	N	LEU	536	44.062	-1.302	48.475	1.00	31.05
	atom	4168	CA	LEU	536	44.574	-0.317	47.536	1.00	28.88
	atom	4169	CB	LEU	536	44.148	-0.686	46.120	1.00	20.05
	atom	4170	CG	LEU	536	44.814	-2.001	45.746	1.00	17.34
35	atom	4171	CD1	LEU	536	44.447	-2.418	44.336	1.00	14.63
	atom	4172	CD2	LEU	536	46.316	-1.828	45.895	1.00	16.21

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	atom	4173	C	LEU	536	44.157	1.104	47.866	1.00	29.61
	atom	4174	O	LEU	536	42.984	1.383	48.100	1.00	29.85
	atom	4175	N	THR	537	45.148	1.987	47.916	1.00	28.82
	atom	4176	CA	THR	537	44.927	3.396	48.186	1.00	30.68
5	atom	4177	CB	THR	537	46.005	3.978	49.116	1.00	34.05
	atom	4178	OG1	THR	537	47.102	4.463	48.325	1.00	37.16
	atom	4179	CG2	THR	537	46.505	2.923	50.095	1.00	37.83
	atom	4180	C	THR	537	45.055	4.086	46.833	1.00	31.45
	atom	4181	O	THR	537	45.804	3.629	45.972	1.00	30.15
10	atom	4182	N	PRO	538	44.314	5.176	46.617	1.00	29.13
	atom	4183	CD	PRO	538	43.325	5.821	47.497	1.00	30.93
	atom	4184	CA	PRO	538	44.434	5.844	45.321	1.00	29.71
	atom	4185	CB	PRO	538	43.652	7.135	45.511	1.00	31.77
	atom	4186	CG	PRO	538	42.634	6.788	46.578	1.00	32.13
15	atom	4187	C	PRO	538	45.900	6.075	44.973	1.00	30.50
	atom	4188	O	PRO	538	46.692	6.472	45.831	1.00	29.48
	atom	4189	N	ILE	539	46.257	5.796	43.719	1.00	28.66
	atom	4190	CA	ILE	539	47.626	5.955	43.261	1.00	30.89
	atom	4191	CB	ILE	539	47.843	5.328	41.855	1.00	32.12
20	atom	4192	CG2	ILE	539	49.236	5.640	41.357	1.00	23.73
	atom	4193	CG1	ILE	539	47.669	3.808	41.922	1.00	33.30
	atom	4194	CD1	ILE	539	47.241	3.163	40.605	1.00	32.29
	atom	4195	C	ILE	539	47.978	7.425	43.212	1.00	35.32
	atom	4196	O	ILE	539	47.301	8.217	42.561	1.00	36.86
25	atom	4197	N	PRO	540	49.040	7.810	43.923	1.00	42.57
	atom	4198	CD	PRO	540	49.869	6.899	44.735	1.00	45.45
	atom	4199	CA	PRO	540	49.500	9.203	43.973	1.00	47.52
	atom	4200	CB	PRO	540	50.494	9.224	45.134	1.00	47.95
	atom	4201	CG	PRO	540	50.913	7.798	45.335	1.00	46.55
30	atom	4202	C	PRO	540	50.135	9.671	42.667	1.00	51.52
	atom	4203	O	PRO	540	49.905	10.793	42.228	1.00	52.60
	atom	4204	N	ALA	541	50.937	8.810	42.053	1.00	53.79
	atom	4205	CA	ALA	541	51.592	9.151	40.797	1.00	58.44
	atom	4206	CB	ALA	541	52.733	8.168	40.535	1.00	61.73
35	atom	4207	C	ALA	541	50.600	9.147	39.621	1.00	60.41
	atom	4208	O	ALA	541	50.855	8.529	38.582	1.00	58.45

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	atom	4209	N	ALA	542	49.473	9.839	39.793	1.00	62.52
	atom	4210	CA	ALA	542	48.433	9.920	38.766	1.00	62.72
	atom	4211	CB	ALA	542	47.760	8.558	38.601	1.00	64.28
	atom	4212	C	ALA	542	47.384	10.967	39.142	1.00	64.21
5	atom	4213	O	ALA	542	46.574	10.739	40.046	1.00	64.50
	atom	4214	N	SER	543	47.391	12.105	38.450	1.00	64.02
	atom	4215	CA	SER	543	46.428	13.173	38.725	1.00	61.74
	atom	4216	CB	SER	543	46.552	13.643	40.180	1.00	60.37
	atom	4217	OG	SER	543	45.414	13.287	40.952	1.00	56.95
10	atom	4218	C	SER	543	46.654	14.352	37.788	1.00	61.94
	atom	4219	O	SER	543	47.593	14.261	36.965	1.00	63.12
	atom	4220	CB	LEU	547	43.716	10.598	30.109	1.00	46.53
	atom	4221	CG	LEU	547	44.915	9.938	30.813	1.00	41.86
	atom	4222	CD1	LEU	547	44.610	8.464	31.097	1.00	39.82
15	atom	4223	CD2	LEU	547	46.162	10.064	29.939	1.00	40.47
	atom	4224	C	LEU	547	42.571	12.609	29.095	1.00	50.18
	atom	4225	O	LEU	547	41.655	11.854	28.772	1.00	53.79
	atom	4226	N	LEU	547	44.121	12.899	30.947	1.00	47.33
	atom	4227	CA	LEU	547	43.855	12.084	29.729	1.00	50.02
20	atom	4228	N	SER	548	42.516	13.923	28.930	1.00	51.66
	atom	4229	CA	SER	548	41.354	14.582	28.350	1.00	52.11
	atom	4230	CB	SER	548	41.366	16.070	28.731	1.00	53.79
	atom	4231	OG	SER	548	42.546	16.705	28.255	1.00	56.74
	atom	4232	C	SER	548	41.320	14.440	26.823	1.00	50.14
25	atom	4233	O	SER	548	40.273	14.124	26.250	1.00	47.18
	atom	4234	N	GLY	549	42.472	14.666	26.185	1.00	47.75
	atom	4235	CA	GLY	549	42.576	14.589	24.733	1.00	46.46
	atom	4236	C	GLY	549	42.238	13.259	24.083	1.00	43.60
	atom	4237	O	GLY	549	41.764	13.209	22.947	1.00	45.49
30	atom	4238	N	TRP	550	42.472	12.183	24.819	1.00	40.58
	atom	4239	CA	TRP	550	42.230	10.830	24.349	1.00	37.12
	atom	4240	CB	TRP	550	42.491	9.850	25.479	1.00	33.40
	atom	4241	CG	TRP	550	43.931	9.703	25.814	1.00	39.27
	atom	4242	CD2	TRP	550	44.542	8.594	26.472	1.00	38.11
35	atom	4243	CE2	TRP	550	45.913	8.884	26.586	1.00	39.99
	atom	4244	CE3	TRP	550	44.060	7.385	26.985	1.00	40.66

	atom	4245	CD1	TRP	550	44.928	10.594	25.557	1.00	38.74
	atom	4246	NE1	TRP	550	46.122	10.111	26.013	1.00	39.45
	atom	4247	C22	TRP	550	46.814	8.004	27.177	1.00	39.82
	atom	4248	CZ3	TRP	550	44.950	6.513	27.571	1.00	41.68
5	atom	4249	CH2	TRP	550	46.315	6.829	27.669	1.00	40.92
	atom	4250	C	TRP	550	40.821	10.610	23.850	1.00	37.72
	atom	4251	O	TRP	550	40.592	9.901	22.854	1.00	36.59
	atom	4252	N	PHE	551	39.877	11.218	24.555	1.00	36.18
	atom	4253	CA	PHE	551	38.480	11.055	24.225	1.00	33.96
10	atom	4254	CB	PHE	551	37.799	10.321	25.371	1.00	30.39
	atom	4255	CG	PHE	551	38.513	9.055	25.777	1.00	25.23
	atom	4256	CD1	PHE	551	39.427	9.054	26.826	1.00	27.56
	atom	4257	CD2	PHE	551	38.266	7.857	25.115	1.00	27.89
	atom	4258	CE1	PHE	551	40.091	7.860	27.216	1.00	24.35
15	atom	4259	CE2	PHE	551	38.920	6.656	25.492	1.00	19.97
	atom	4260	CZ	PHE	551	39.828	6.664	26.541	1.00	22.33
	atom	4261	C	PHE	551	37.791	12.370	23.892	1.00	35.69
	atom	4262	O	PHE	551	36.898	12.843	24.607	1.00	35.41
	atom	4263	N	VAL	552	38.232	12.935	22.770	1.00	32.09
20	atom	4264	CA	VAL	552	37.725	14.186	22.237	1.00	29.85
	atom	4265	CB	VAL	552	38.901	15.090	21.838	1.00	31.14
	atom	4266	CG1	VAL	552	38.469	16.069	20.772	1.00	29.68
	atom	4267	CG2	VAL	552	39.442	15.809	23.065	1.00	28.42
	atom	4268	C	VAL	552	36.854	13.902	20.998	1.00	27.42
25	atom	4269	O	VAL	552	35.723	14.361	20.902	1.00	27.21
	atom	4270	N	ALA	553	37.394	13.130	20.065	1.00	24.42
	atom	4271	CA	ALA	553	36.697	12.783	18.829	1.00	23.14
	atom	4272	CB	ALA	553	36.902	13.877	17.785	1.00	18.35
	atom	4273	C	ALA	553	37.228	11.468	18.280	1.00	20.69
30	atom	4274	O	ALA	553	38.277	10.987	18.709	1.00	18.72
	atom	4275	N	GLY	554	36.497	10.897	17.328	1.00	18.56
	atom	4276	CA	GLY	554	36.918	9.657	16.701	1.00	15.95
	atom	4277	C	GLY	554	37.778	9.988	15.492	1.00	19.28
	atom	4278	O	GLY	554	37.555	10.992	14.817	1.00	17.64
35	atom	4279	N	TYR	555	38.756	9.138	15.201	1.00	22.01
	atom	4280	CA	TYR	555	39.639	9.399	14.079	1.00	24.13

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	atom	4281	CB	TYR	555	40.937	10.005	14.595	1.00	20.22
	atom	4282	CG	TYR	555	40.748	11.356	15.221	1.00	19.94
	atom	4283	CD1	TYR	555	40.759	11.516	16.607	1.00	18.14
	atom	4284	CE1	TYR	555	40.695	12.784	17.180	1.00	20.60
5	atom	4285	CD2	TYR	555	40.651	12.490	14.427	1.00	18.09
	atom	4286	CE2	TYR	555	40.587	13.747	14.984	1.00	18.43
	atom	4287	CZ	TYR	555	40.622	13.888	16.351	1.00	19.06
	atom	4288	OH	TYR	555	40.673	15.148	16.863	1.00	24.90
	atom	4289	C	TYR	555	39.985	8.216	13.197	1.00	26.88
10	atom	4290	O	TYR	555	40.916	8.304	12.400	1.00	30.02
	atom	4291	N	SER	556	39.272	7.106	13.315	1.00	30.32
	atom	4292	CA	SER	556	39.629	5.978	12.464	1.00	37.27
	atom	4293	CB	SER	556	38.942	4.690	12.933	1.00	37.51
	atom	4294	OG	SER	556	37.535	4.827	12.988	1.00	51.44
15	atom	4295	C	SER	556	39.263	6.293	11.020	1.00	37.29
	atom	4296	O	SER	556	38.051	6.322	10.719	1.00	38.86
	atom	4297	OT	SER	556	40.198	6.526	10.221	1.00	34.94
	atom	4298	O	HOH	601	46.597	10.920	10.721	1.00	20.61
	atom	4299	O	HOH	602	22.175	2.399	-11.303	1.00	39.23
20	atom	4300	O	HOH	603	22.555	-6.018	20.759	1.00	25.24
	atom	4301	O	HOH	604	10.699	23.284	3.535	1.00	11.38
	atom	4302	O	HOH	605	33.779	-15.862	-12.840	1.00	32.40
	atom	4303	O	HOH	606	23.250	-5.255	39.290	1.00	19.05
	atom	4304	O	HOH	607	56.607	18.994	13.165	1.00	29.80
25	atom	4305	O	HOH	608	32.158	-6.088	14.607	1.00	26.14
	atom	4306	O	HOH	609	56.341	-19.171	32.102	1.00	30.79
	atom	4307	O	HOH	610	42.183	-16.676	46.222	1.00	43.54
	atom	4308	O	HOH	611	45.029	9.354	9.054	1.00	41.58
	atom	4309	O	HOH	612	47.451	26.726	6.177	1.00	47.73
30	atom	4310	O	HOH	613	2.470	-1.802	27.736	1.00	38.21
	atom	4311	O	HOH	614	47.043	21.787	16.034	1.00	23.91
	atom	4312	O	HOH	615	34.075	17.253	18.692	1.00	22.58
	atom	4313	O	HOH	616	50.817	23.460	-12.759	1.00	40.31
	atom	4314	O	HOH	617	38.747	2.676	9.078	1.00	25.13
35	atom	4315	O	HOH	618	35.002	0.690	23.109	1.00	15.25
	atom	4316	O	HOH	619	52.799	16.218	-9.314	1.00	39.47

5	atom	4317	0	HOH	620	57.492	32.252	19.690	1.00	51.60
	atom	4318	0	HOH	621	24.538	-2.398	-12.767	1.00	35.98
	atom	4319	0	HOH	622	45.774	-26.860	17.172	1.00	47.38
	atom	4320	0	HOH	623	16.918	-0.379	-0.855	1.00	50.73
	atom	4321	0	HOH	624	35.816	-18.589	0.233	1.00	41.40
	atom	4322	0	HOH	625	48.368	29.897	14.750	1.00	21.51
	atom	4323	0	HOH	626	36.518	3.819	41.949	1.00	11.95
	atom	4324	0	HOH	627	43.658	6.306	-16.389	1.00	42.56
10	atom	4325	0	HOH	628	48.323	10.990	7.196	1.00	23.08
	atom	4326	0	HOH	629	38.139	-19.255	43.774	1.00	44.50
	atom	4327	0	HOH	630	34.071	6.076	12.772	1.00	24.32
	atom	4328	0	HOH	631	58.322	10.881	14.337	1.00	39.25
	atom	4329	0	HOH	632	26.691	26.778	4.448	1.00	28.44
15	atom	4330	0	HOH	633	53.979	24.631	19.675	1.00	54.93
	atom	4331	0	HOH	634	2.628	2.180	11.312	1.00	36.74
	atom	4332	0	HOH	635	5.149	14.418	28.631	1.00	35.56
	atom	4333	0	HOH	636	32.587	-3.817	12.697	1.00	63.31
	atom	4334	0	HOH	637	27.170	-9.280	31.802	1.00	24.21
20	atom	4335	0	HOH	638	43.450	5.359	10.944	1.00	36.10
	atom	4336	0	HOH	639	26.062	-12.225	14.751	1.00	49.87
	atom	4337	0	HOH	640	14.706	7.497	-5.096	1.00	18.84
	atom	4338	0	HOH	641	57.477	-14.762	35.981	1.00	28.21
	atom	4339	0	HOH	642	51.547	9.783	48.172	1.00	53.68
25	atom	4340	0	HOH	643	30.933	-6.757	-7.733	1.00	35.43
	atom	4341	0	HOH	644	25.070	13.151	5.827	1.00	2.00
	atom	4342	0	HOH	645	56.672	-10.309	18.187	1.00	45.96
	atom	4343	0	HOH	646	11.579	20.415	6.160	1.00	28.95
	atom	4344	0	HOH	647	27.916	-15.124	2.287	1.00	18.06
30	atom	4345	0	HOH	648	35.221	2.326	34.458	1.00	25.12
	atom	4346	0	HOH	649	38.312	9.262	36.937	1.00	67.07
	atom	4347	0	HOH	650	46.258	6.938	4.683	1.00	24.22
	atom	4348	0	HOH	651	42.606	-3.262	36.649	1.00	21.46
	atom	4349	0	HOH	652	40.235	11.518	20.853	1.00	27.91
35	atom	4350	0	HOH	653	22.794	25.287	5.447	1.00	26.04
	atom	4351	0	HOH	654	38.206	9.504	-13.291	1.00	30.62
	atom	4352	0	HOH	655	45.226	13.150	18.803	1.00	18.63

	atom	4353	0	HOH	656	33.031	-18.621	22.852	1.00	44.32
	atom	4354	0	HOH	657	9.650	-6.271	22.144	1.00	32.02
	atom	4355	0	HOH	658	30.463	24.471	-1.145	1.00	18.42
	atom	4356	0	HOH	659	41.452	8.031	8.619	1.00	20.10
5	atom	4357	0	HOH	660	24.327	5.781	5.531	1.00	13.22
	atom	4358	0	HOH	661	47.983	6.984	-10.411	1.00	60.77
	atom	4359	0	HOH	662	30.966	-22.909	5.590	1.00	36.24
	atom	4360	0	HOH	663	33.405	-1.565	17.123	1.00	38.51
	atom	4361	0	HOH	664	21.076	7.717	-8.594	1.00	32.16
10	atom	4362	0	HOH	665	16.982	24.733	15.974	1.00	34.58
	atom	4363	0	HOH	666	26.953	23.531	1.354	1.00	31.58
	atom	4364	0	HOH	667	40.572	-13.743	44.640	1.00	37.35
	atom	4365	0	HOH	668	31.441	0.335	7.724	1.00	41.72
	atom	4366	0	HOH	669	47.678	-7.636	13.712	1.00	31.80
15	atom	4367	0	HOH	670	46.557	22.825	-11.411	1.00	67.81
	atom	4368	0	HOH	671	21.234	10.081	-2.885	1.00	10.38
	atom	4369	0	HOH	672	31.211	-1.023	4.408	1.00	24.09
	atom	4370	0	HOH	673	50.141	-6.813	-11.682	1.00	21.54
	atom	4371	0	HOH	674	33.244	15.024	-9.889	1.00	67.86
20	atom	4372	0	HOH	675	38.979	11.058	31.410	1.00	26.12
	atom	4373	0	HOH	676	34.118	11.305	3.467	1.00	28.25
	atom	4374	0	HOH	677	46.763	-27.510	31.664	1.00	52.83
	atom	4375	0	HOH	678	35.099	2.565	8.047	1.00	28.30
	atom	4376	0	HOH	679	9.176	25.088	4.798	1.00	18.72
25	atom	4377	0	HOH	680	14.704	13.412	25.182	1.00	48.26
	atom	4378	0	HOH	681	6.438	4.023	3.328	1.00	61.72
	atom	4379	0	HOH	682	32.219	15.747	2.622	1.00	38.25
	atom	4380	0	HOH	683	31.014	-13.129	15.368	1.00	36.02
	atom	4381	0	HOH	684	41.423	22.998	-13.412	1.00	46.45
30	atom	4382	0	HOH	685	41.073	14.541	32.544	1.00	57.67
	atom	4383	0	HOH	686	41.923	30.239	10.109	1.00	24.51
	atom	4384	0	HOH	687	13.043	1.835	1.524	1.00	45.08
	atom	4385	0	HOH	688	36.384	1.728	2.325	1.00	23.11
	atom	4386	0	HOH	689	38.926	-12.759	41.527	1.00	26.09
35	atom	4387	0	HOH	690	13.533	4.342	-1.256	1.00	53.49
	atom	4388	0	HOH	691	42.859	-30.767	29.292	1.00	49.63

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	atom	4389	0	HOH	692	46.981	-5.614	-11.265	1.00	28.30
	atom	4390	0	HOH	693	34.904	-2.672	2.841	1.00	25.95
	atom	4391	0	HOH	694	22.975	23.743	2.224	1.00	32.47
	atom	4392	0	HOH	695	45.861	14.150	31.270	1.00	37.81
5	atom	4393	0	HOH	696	46.016	15.972	22.828	1.00	88.18
	atom	4394	0	HOH	697	13.753	-0.702	38.177	1.00	52.89
	atom	4395	0	HOH	698	34.502	16.040	22.414	1.00	27.95
	atom	4396	0	HOH	699	22.706	27.973	10.089	1.00	35.75
	atom	4397	0	HOH	700	63.426	-24.001	17.375	1.00	42.25
10	atom	4398	0	HOH	701	34.349	9.690	1.548	1.00	9.34
	atom	4399	0	HOH	702	41.163	2.343	49.912	1.00	27.48
	atom	4400	0	HOH	703	9.851	15.333	21.500	1.00	58.68
	atom	4401	0	HOH	704	44.019	27.355	14.119	1.00	23.41
	atom	4402	0	HOH	705	47.294	-8.487	10.420	1.00	28.83
15	atom	4403	0	HOH	706	-0.567	-15.964	21.058	1.00	71.82
	atom	4404	0	HOH	707	45.139	17.223	28.013	1.00	36.95
	atom	4405	0	HOH	708	54.938	29.596	18.826	1.00	45.27
	atom	4406	0	HOH	709	56.658	-1.774	11.129	1.00	59.82
	atom	4407	0	HOH	710	41.378	-2.253	48.336	1.00	83.26
20	atom	4408	0	HOH	711	34.016	0.844	32.187	1.00	19.51
	atom	4409	0	HOH	712	40.079	23.922	18.790	1.00	40.86
	atom	4410	0	HOH	713	23.939	16.548	-6.662	1.00	73.98
	atom	4411	0	HOH	714	43.805	-5.760	37.997	1.00	33.15
	atom	4412	0	HOH	715	43.983	12.763	7.024	1.00	49.45
25	atom	4413	0	HOH	716	17.467	-6.790	34.490	1.00	60.85
	atom	4414	0	HOH	717	57.128	-9.673	7.961	1.00	47.78
	atom	4415	0	HOH	718	28.310	-13.504	15.674	1.00	32.19
	atom	4416	0	HOH	719	48.350	12.483	24.005	1.00	59.90
	atom	4417	0	HOH	720	19.085	8.242	-9.951	1.00	25.97
30	atom	4418	0	HOH	721	55.772	11.621	19.184	1.00	35.36
	atom	4419	0	HOH	722	7.019	15.603	32.528	1.00	63.48
	atom	4420	0	HOH	723	36.866	-13.652	15.802	1.00	27.53
	atom	4421	0	HOH	724	43.517	24.315	-12.119	1.00	35.85
	atom	4422	0	HOH	725	37.708	-15.785	39.175	1.00	54.73
35	atom	4423	0	HOH	726	5.217	0.089	34.330	1.00	62.89
	atom	4424	0	HOH	727	22.932	16.773	24.935	1.00	39.55

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	atom	4461	0	HOH	764	10.893	18.980	16.387	1.00	59.57
	atom	4462	0	HOH	765	34.601	4.808	35.497	1.00	43.50
	atom	4463	0	HOH	766	31.888	17.167	-8.403	1.00	52.16
	atom	4464	0	HOH	767	36.373	-3.491	21.106	1.00	13.51
5	atom	4465	0	HOH	768	23.246	19.202	-6.517	1.00	41.10
	atom	4466	0	HOH	769	45.743	17.021	-5.597	1.00	31.22
	atom	4467	0	HOH	770	33.244	-13.586	18.326	1.00	41.46
	atom	4468	0	HOH	771	57.928	30.606	16.929	1.00	38.33
	atom	4469	0	HOH	772	69.124	-11.949	27.989	1.00	69.32
10	atom	4470	0	HOH	773	29.727	-22.652	27.281	1.00	30.26
	atom	4471	0	HOH	774	37.839	-4.465	13.760	1.00	22.09
	atom	4472	0	HOH	775	41.248	-0.915	16.241	1.00	49.75
	atom	4473	0	HOH	776	32.612	-23.200	24.163	1.00	53.24
	atom	4474	0	HOH	777	47.550	17.765	-7.284	1.00	30.72
15	atom	4475	0	HOH	778	22.460	12.258	5.644	1.00	12.35
	atom	4476	0	HOH	779	6.843	19.969	17.253	1.00	24.63
	atom	4477	0	HOH	780	-1.037	0.592	12.041	1.00	32.13
	atom	4478	0	HOH	781	16.879	16.213	-1.036	1.00	31.03
	atom	4479	0	HOH	782	4.952	-10.654	24.420	1.00	66.04
20	atom	4480	0	HOH	783	30.976	21.960	23.463	1.00	26.66
	atom	4481	0	HOH	784	54.549	-16.852	43.639	1.00	44.86
	atom	4482	0	HOH	785	35.858	0.543	37.145	1.00	32.91
	atom	4483	0	HOH	786	37.629	0.228	45.081	1.00	25.52
	atom	4484	0	HOH	787	34.090	-24.595	29.357	1.00	44.67
25	atom	4485	0	HOH	788	51.277	31.211	-7.019	1.00	41.33
	atom	4486	0	HOH	789	30.912	-2.933	10.609	1.00	72.82
	atom	4487	0	HOH	790	58.746	-7.303	-10.029	1.00	58.21
	atom	4488	0	HOH	791	53.940	14.157	19.431	1.00	35.15
	atom	4489	0	HOH	792	32.011	-0.149	14.251	1.00	47.16
30	atom	4490	0	HOH	793	13.553	23.341	8.528	1.00	53.03
	atom	4491	0	HOH	794	37.675	-7.811	-8.912	1.00	44.94
	atom	4492	0	HOH	795	48.715	-0.365	3.142	1.00	41.74
	atom	4493	0	HOH	796	50.589	-16.659	6.378	1.00	18.40
	atom	4494	0	HOH	797	44.199	-19.067	6.859	1.00	36.05
35	atom	4495	0	HOH	798	53.441	-26.855	20.517	1.00	50.57
	atom	4496	0	HOH	799	49.408	-26.628	20.724	1.00	50.72

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	atom	4497	0	HOH	800	52.640	-19.756	30.198	1.00	47.50
	atom	4498	0	HOH	801	18.857	3.501	-9.706	1.00	21.84
	atom	4499	0	HOH	802	17.896	1.182	-11.952	1.00	32.00
	atom	4500	0	HOH	803	13.919	4.000	-10.397	1.00	46.84
5	atom	4501	0	HOH	804	11.557	5.995	-4.803	1.00	48.55
	atom	4502	0	HOH	805	11.140	9.279	7.880	1.00	25.88
	atom	4503	0	HOH	806	18.676	16.664	2.033	1.00	34.39
	atom	4504	0	HOH	807	27.433	31.963	16.774	1.00	20.95
	atom	4505	0	HOH	808	53.253	29.573	9.882	1.00	33.76
10	atom	4506	0	HOH	809	54.907	28.009	11.555	1.00	52.31
	atom	4507	0	HOH	810	62.641	11.739	-4.252	1.00	32.53
	atom	4508	0	HOH	811	65.068	5.329	5.372	1.00	54.51
	atom	4509	0	HOH	812	65.803	8.849	4.108	1.00	47.37
	atom	4510	0	HOH	813	43.721	20.002	-11.175	1.00	30.38
15	atom	4511	0	HOH	814	34.406	-17.139	17.170	1.00	41.80
	atom	4512	0	HOH	815	34.703	-23.625	4.105	1.00	61.03
	atom	4513	0	HOH	816	34.197	-17.469	3.287	1.00	44.37
	atom	4514	0	HOH	817	50.104	7.478	-2.288	1.00	25.23
	atom	4515	0	HOH	818	41.677	18.551	18.796	1.00	45.33
20	atom	4516	0	HOH	819	38.682	19.681	20.416	1.00	45.22
	atom	4517	0	HOH	820	11.768	4.457	37.706	1.00	51.55
	atom	4518	0	HOH	821	8.218	0.919	37.720	1.00	44.65
	atom	4519	0	HOH	822	3.397	-1.753	33.199	1.00	33.07
	atom	4520	0	HOH	823	34.080	1.178	3.231	1.00	31.48
25	atom	4521	0	HOH	824	31.348	10.501	-7.664	1.00	31.78
	atom	4522	0	HOH	825	38.108	4.850	-12.161	1.00	31.16
	atom	4523	0	HOH	826	38.982	10.342	10.406	1.00	32.25
	atom	4524	0	HOH	827	5.149	5.654	13.265	1.00	31.34
	atom	4525	0	HOH	828	6.416	-8.088	20.222	1.00	49.34
30	atom	4526	0	HOH	829	-1.858	-3.132	18.913	1.00	33.22
	atom	4527	0	HOH	830	11.873	9.162	4.510	1.00	29.62
	atom	4528	0	HOH	831	19.232	-5.660	17.559	1.00	26.97
	atom	4529	0	HOH	832	12.983	-8.915	15.306	1.00	41.69
	atom	4530	0	HOH	833	18.416	-11.585	21.008	1.00	35.22
35	atom	4531	0	HOH	834	22.507	-3.262	33.451	1.00	77.42
	atom	4532	0	HOH	835	26.191	-1.017	24.576	1.00	26.33

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	atom	4533	0	HOH	836	36.425	-0.682	16.799	1.00	25.51
	atom	4534	0	HOH	837	36.167	2.136	19.428	1.00	35.47
	atom	4535	0	HOH	838	31.892	-9.361	18.329	1.00	38.04
	atom	4536	0	HOH	839	29.958	0.247	50.234	1.00	39.65
5	atom	4537	0	HOH	840	25.664	-2.880	45.446	1.00	25.56
	atom	4538	0	HOH	841	28.111	-11.787	23.722	1.00	20.36
	atom	4539	0	HOH	842	25.802	-13.741	20.864	1.00	48.90
	atom	4540	0	HOH	843	66.721	-13.408	27.755	1.00	46.58
	atom	4541	0	HOH	844	64.307	-3.316	36.898	1.00	35.37
10	atom	4542	0	HOH	845	65.583	-0.436	36.938	1.00	37.85
	atom	4543	0	HOH	846	41.048	-10.431	50.836	1.00	29.82
	atom	4544	0	HOH	847	41.737	18.341	25.701	1.00	64.44
	atom	4545	0	HOH	848	30.918	-2.921	-11.856	1.00	30.43
	atom	4546	0	HOH	849	51.446	22.839	17.216	1.00	43.87
15	atom	4547	0	HOH	850	60.785	2.614	-0.874	1.00	35.10
	atom	4548	0	HOH	851	56.838	-0.895	2.586	1.00	49.62
	atom	4549	0	HOH	852	47.396	10.491	-8.843	1.00	52.54
	atom	4550	0	HOH	853	38.574	-14.690	4.444	1.00	30.06
	atom	4551	0	HOH	854	18.756	-0.542	39.542	1.00	39.05
20	atom	4552	0	HOH	855	29.513	29.579	6.595	1.00	36.41
	atom	4553	0	HOH	856	32.813	33.195	8.357	1.00	28.63
	atom	4554	0	HOH	857	40.705	7.094	-13.994	1.00	29.74
	atom	4555	0	HOH	858	50.499	1.421	-2.924	1.00	31.42
	atom	4556	0	HOH	859	47.470	0.293	-15.630	1.00	26.52
25	atom	4557	0	HOH	860	46.826	-4.091	15.608	1.00	27.08
	atom	4558	0	HOH	861	43.465	-1.915	20.388	1.00	50.46
	atom	4559	0	HOH	862	39.396	-8.251	42.274	1.00	25.43
	atom	4560	0	HOH	863	62.025	-4.244	31.799	1.00	24.26
	atom	4561	0	HOH	864	51.328	10.747	31.485	1.00	32.16
30	atom	4562	0	HOH	865	35.283	7.979	42.362	1.00	38.81
	atom	4563	0	HOH	866	57.095	-18.565	40.803	1.00	52.30
	atom	4564	0	HOH	867	58.155	-2.683	46.266	1.00	22.74
	atom	4565	0	HOH	868	48.057	20.382	-12.222	1.00	50.35
	atom	4566	0	HOH	869	49.547	0.925	0.838	1.00	51.45
35	atom	4567	0	HOH	870	46.392	4.053	4.644	1.00	50.25
	atom	4568	0	HOH	871	17.601	15.375	19.352	1.00	65.08

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	atom	4569	0	HOH	872	4.479	9.329	31.775	1.00	36.17
	atom	4570	0	HOH	873	22.319	18.788	-0.495	1.00	24.87
	atom	4571	0	HOH	874	35.839	30.245	-0.342	1.00	48.51
	atom	4572	0	HOH	875	48.453	2.849	-6.547	1.00	33.73
5	atom	4573	0	HOH	876	0.605	7.424	25.945	1.00	39.41
	atom	4574	0	HOH	877	2.396	-3.829	13.234	1.00	30.89
	atom	4575	0	HOH	878	14.152	-2.287	5.419	1.00	18.22
	atom	4576	0	HOH	879	35.704	-8.865	16.297	1.00	31.23
	atom	4577	0	HOH	880	47.890	11.218	33.219	1.00	51.93
10	atom	4578	0	HOH	881	35.361	8.156	33.971	1.00	47.66
	atom	4579	0	HOH	882	40.052	7.610	41.373	1.00	36.84
	atom	4580	0	HOH	883	56.929	-15.208	46.351	1.00	55.62
	atom	4581	0	HOH	884	52.052	-0.414	49.836	1.00	55.41

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Table 3

		atom type numbers				X	Y	Z	Occ	B
5	atom	1	CB	SER	1	-0.472	36.318	37.903	1.00	39.80
	atom	2	OG	SER	1	0.927	36.299	37.658	1.00	43.45
	atom	3	C	SER	1	-0.592	34.149	36.651	1.00	36.40
	atom	4	O	SER	1	0.320	33.337	36.680	1.00	35.78
	atom	5	N	SER	1	-0.777	34.227	39.141	1.00	38.06
10	atom	6	CA	SER	1	-1.083	34.914	37.872	1.00	36.88
	atom	7	N	MET	2	-1.243	34.411	35.532	1.00	36.57
	atom	8	CA	MET	2	-0.922	33.825	34.250	1.00	36.47
	atom	9	CB	MET	2	-2.049	34.140	33.254	1.00	34.39
	atom	10	CG	MET	2	-3.375	33.528	33.693	1.00	34.97
15	atom	11	SD	MET	2	-3.304	31.708	33.770	1.00	36.74
	atom	12	CE	MET	2	-3.074	31.335	32.043	1.00	32.43
	atom	13	C	MET	2	0.423	34.384	33.775	1.00	37.18
	atom	14	O	MET	2	0.657	35.595	33.779	1.00	36.40
	atom	15	N	SER	3	1.297	33.489	33.332	1.00	36.77
20	atom	16	CA	SER	3	2.584	33.855	32.778	1.00	37.83
	atom	17	CB	SER	3	3.395	32.599	32.438	1.00	36.10
	atom	18	OG	SER	3	2.772	31.910	31.367	1.00	34.54
	atom	19	C	SER	3	2.375	34.683	31.518	1.00	38.41
	atom	20	O	SER	3	3.198	35.511	31.134	1.00	39.16
25	atom	21	N	TYR	4	1.350	34.380	30.737	1.00	38.61
	atom	22	CA	TYR	4	1.031	35.093	29.512	1.00	39.70
	atom	23	CB	TYR	4	1.606	34.437	28.268	1.00	40.36
	atom	24	CG	TYR	4	3.109	34.438	28.099	1.00	42.35
	atom	25	CD1	TYR	4	3.896	33.421	28.635	1.00	41.85
30	atom	26	CE1	TYR	4	5.267	33.433	28.488	1.00	42.19
	atom	27	CD2	TYR	4	3.747	35.449	27.382	1.00	43.13
	atom	28	CE2	TYR	4	5.120	35.460	27.218	1.00	42.63
	atom	29	CZ	TYR	4	5.873	34.443	27.774	1.00	41.86
	atom	30	OH	TYR	4	7.236	34.448	27.621	1.00	40.75
35	atom	31	C	TYR	4	-0.496	35.212	29.368	1.00	39.55
	atom	32	O	TYR	4	-1.275	34.457	29.932	1.00	39.12

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	atom	33	N	THR	5	-0.939	36.220	28.660	1.00	39.23
	atom	34	CA	THR	5	-2.335	36.497	28.358	1.00	40.53
	atom	35	CB	THR	5	-2.938	37.630	29.184	1.00	38.69
	atom	36	OG1	THR	5	-3.046	37.279	30.571	1.00	34.93
5	atom	37	CG2	THR	5	-4.318	37.999	28.669	1.00	38.43
	atom	38	C	THR	5	-2.236	36.839	26.867	1.00	41.97
	atom	39	O	THR	5	-1.393	37.692	26.558	1.00	42.83
	atom	40	N	TRP	6	-2.900	36.119	25.992	1.00	42.95
	atom	41	CA	TRP	6	-2.730	36.317	24.558	1.00	44.74
10	atom	42	CB	TRP	6	-2.542	34.966	23.842	1.00	43.82
	atom	43	CG	TRP	6	-1.352	34.227	24.390	1.00	43.63
	atom	44	CD2	TRP	6	0.023	34.517	24.113	1.00	43.11
	atom	45	CE2	TRP	6	0.797	33.594	24.849	1.00	44.18
	atom	46	CE3	TRP	6	0.678	35.449	23.304	1.00	42.40
15	atom	47	CD1	TRP	6	-1.363	33.201	25.284	1.00	43.73
	atom	48	NE1	TRP	6	-0.078	32.803	25.557	1.00	45.01
	atom	49	CZ2	TRP	6	2.194	33.578	24.807	1.00	41.91
	atom	50	CZ3	TRP	6	2.069	35.433	23.262	1.00	43.17
	atom	51	CH2	TRP	6	2.809	34.510	24.016	1.00	41.02
20	atom	52	C	TRP	6	-3.875	37.090	23.926	1.00	46.32
	atom	53	O	TRP	6	-4.998	37.140	24.420	1.00	46.84
	atom	54	N	THR	7	-3.579	37.665	22.768	1.00	47.47
	atom	55	CA	THR	7	-4.526	38.536	22.086	1.00	48.96
	atom	56	CB	THR	7	-3.702	39.778	21.658	1.00	49.60
25	atom	57	OG1	THR	7	-4.344	40.976	22.089	1.00	50.99
	atom	58	CG2	THR	7	-3.446	39.832	20.169	1.00	47.40
	atom	59	C	THR	7	-5.233	37.927	20.894	1.00	49.38
	atom	60	O	THR	7	-6.376	38.271	20.585	1.00	50.13
	atom	61	N	GLY	8	-4.547	37.056	20.165	1.00	49.09
30	atom	62	CA	GLY	8	-5.109	36.501	18.931	1.00	48.71
	atom	63	C	GLY	8	-4.080	36.756	17.830	1.00	48.37
	atom	64	O	GLY	8	-3.783	35.854	17.062	1.00	49.34
	atom	65	N	ALA	9	-3.503	37.951	17.803	1.00	48.26
	atom	66	CA	ALA	9	-2.475	38.279	16.824	1.00	48.30
35	atom	67	CB	ALA	9	-1.916	39.665	17.083	1.00	47.45
	atom	68	C	ALA	9	-1.376	37.213	16.879	1.00	48.57

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5	atom	69	O	ALA	9	-0.934	36.800	17.951	1.00	48.51
	atom	70	N	LEU	10	-0.976	36.732	15.713	1.00	48.18
	atom	71	CA	LEU	10	0.035	35.704	15.606	1.00	48.82
	atom	72	CB	LEU	10	-0.061	35.030	14.223	1.00	48.40
	atom	73	CG	LEU	10	-1.448	34.465	13.885	1.00	47.81
	atom	74	CD1	LEU	10	-1.679	34.402	12.390	1.00	46.98
	atom	75	CD2	LEU	10	-1.613	33.082	14.500	1.00	48.24
	atom	76	C	LEU	10	1.434	36.285	15.775	1.00	49.54
10	atom	77	O	LEU	10	1.670	37.491	15.667	1.00	49.75
	atom	78	N	ILE	11	2.370	35.380	16.025	1.00	49.50
	atom	79	CA	ILE	11	3.778	35.757	16.123	1.00	49.29
	atom	80	CB	ILE	11	4.554	34.893	17.124	1.00	45.30
15	atom	81	CG2	ILE	11	6.051	35.167	17.055	1.00	42.68
	atom	82	CG1	ILE	11	3.964	35.199	18.499	1.00	42.36
	atom	83	CD1	ILE	11	4.247	34.188	19.568	1.00	41.57
	atom	84	C	ILE	11	4.322	35.582	14.708	1.00	50.19
20	atom	85	O	ILE	11	4.488	34.465	14.233	1.00	50.42
	atom	86	N	THR	12	4.525	36.699	14.049	1.00	51.43
	atom	87	CA	THR	12	4.942	36.697	12.670	1.00	53.79
	atom	88	CB	THR	12	4.413	37.972	11.967	1.00	52.90
25	atom	89	OG1	THR	12	5.085	39.115	12.523	1.00	51.37
	atom	90	CG2	THR	12	2.913	38.058	12.180	1.00	52.05
	atom	91	C	THR	12	6.437	36.686	12.427	1.00	56.24
	atom	92	O	THR	12	7.232	37.311	13.124	1.00	55.82
30	atom	93	N	PRO	13	6.780	36.014	11.335	1.00	57.99
	atom	94	CD	PRO	13	5.897	35.269	10.411	1.00	58.37
	atom	95	CA	PRO	13	8.161	35.986	10.881	1.00	59.97
	atom	96	CB	PRO	13	8.196	34.742	10.005	1.00	59.58
35	atom	97	CG	PRO	13	6.835	34.657	9.409	1.00	58.45
	atom	98	C	PRO	13	8.371	37.247	10.051	1.00	61.93
	atom	99	O	PRO	13	7.380	37.851	9.628	1.00	61.46
	atom	100	N	CYS	14	9.614	37.628	9.826	1.00	64.47
35	atom	101	CA	CYS	14	9.833	38.792	8.962	1.00	68.29
	atom	102	CB	CYS	14	10.793	39.771	9.607	1.00	70.08
	atom	103	SG	CYS	14	12.293	38.991	10.257	1.00	71.95
	atom	104	C	CYS	14	10.335	38.261	7.621	1.00	70.31

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	atom	105	O	CYS	14	10.042	38.807	6.560	1.00	71.30
	atom	106	N	ALA	15	11.052	37.141	7.692	1.00	71.65
	atom	107	CA	ALA	15	11.606	36.497	6.509	1.00	72.80
	atom	108	CB	ALA	15	13.129	36.532	6.571	1.00	72.78
5	atom	109	C	ALA	15	11.126	35.054	6.367	1.00	73.30
	atom	110	O	ALA	15	10.694	34.439	7.341	1.00	73.61
	atom	111	N	ALA	16	11.194	34.530	5.146	1.00	73.43
	atom	112	CA	ALA	16	10.807	33.145	4.897	1.00	73.44
	atom	113	CB	ALA	16	10.812	32.830	3.413	1.00	74.24
10	atom	114	C	ALA	16	11.786	32.231	5.638	1.00	72.96
	atom	115	O	ALA	16	12.990	32.269	5.413	1.00	72.72
	atom	116	N	GLU	17	11.258	31.448	6.559	1.00	72.63
	atom	117	CA	GLU	17	12.042	30.526	7.366	1.00	72.40
	atom	118	CB	GLU	17	11.392	30.394	8.747	1.00	70.45
15	atom	119	CG	GLU	17	10.858	31.696	9.331	1.00	67.97
	atom	120	CD	GLU	17	9.677	31.473	10.256	1.00	66.73
	atom	121	OE1	GLU	17	8.531	31.389	9.766	1.00	67.03
	atom	122	OE2	GLU	17	9.866	31.379	11.481	1.00	65.53
	atom	123	C	GLU	17	12.104	29.155	6.697	1.00	72.58
20	atom	124	O	GLU	17	11.043	28.578	6.433	1.00	72.64
	atom	125	N	GLU	18	13.297	28.654	6.398	1.00	72.52
	atom	126	CA	GLU	18	13.399	27.331	5.775	1.00	72.92
	atom	127	CB	GLU	18	14.647	27.182	4.922	1.00	72.56
	atom	128	CG	GLU	18	14.654	27.982	3.635	1.00	72.95
25	atom	129	CD	GLU	18	13.523	27.640	2.687	1.00	73.36
	atom	130	OE1	GLU	18	12.915	26.554	2.803	1.00	73.08
	atom	131	OE2	GLU	18	13.245	28.495	1.819	1.00	73.29
	atom	132	C	GLU	18	13.364	26.269	6.867	1.00	73.09
	atom	133	O	GLU	18	13.788	26.584	7.979	1.00	72.95
30	atom	134	N	SER	19	12.863	25.073	6.572	1.00	73.60
	atom	135	CA	SER	19	12.776	24.043	7.601	1.00	74.00
	atom	136	CB	SER	19	11.312	23.900	8.038	1.00	73.40
	atom	137	OG	SER	19	10.474	23.561	6.952	1.00	73.41
	atom	138	C	SER	19	13.304	22.669	7.226	1.00	74.74
35	atom	139	O	SER	19	13.405	21.802	8.100	1.00	74.11
	atom	140	N	LYS	20	13.659	22.448	5.969	1.00	75.90

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5	atom	141	CA	LYS	20	14.167	21.136	5.564	1.00	77.54
	atom	142	CB	LYS	20	13.161	20.477	4.633	1.00	78.75
	atom	143	CG	LYS	20	12.981	18.984	4.755	1.00	81.11
	atom	144	CD	LYS	20	12.326	18.509	6.040	1.00	82.87
	atom	145	CE	LYS	20	13.347	17.985	7.035	1.00	83.93
	atom	146	NZ	LYS	20	12.768	17.017	8.007	1.00	83.21
	atom	147	C	LYS	20	15.564	21.262	4.973	1.00	78.02
	atom	148	O	LYS	20	15.925	22.262	4.360	1.00	77.75
10	atom	149	N	LEU	21	16.406	20.279	5.263	1.00	79.33
	atom	150	CA	LEU	21	17.784	20.247	4.790	1.00	81.02
	atom	151	CB	LEU	21	18.519	19.090	5.434	1.00	79.55
	atom	152	CG	LEU	21	19.932	19.216	5.969	1.00	78.49
15	atom	153	CD1	LEU	21	20.464	17.819	6.265	1.00	77.56
	atom	154	CD2	LEU	21	20.872	19.994	5.076	1.00	78.06
	atom	155	C	LEU	21	17.749	20.071	3.274	1.00	82.89
	atom	156	O	LEU	21	17.162	19.110	2.789	1.00	82.63
	atom	157	N	PRO	22	18.365	20.990	2.551	1.00	84.77
	atom	158	CD	PRO	22	19.074	22.168	3.118	1.00	85.14
20	atom	159	CA	PRO	22	18.403	20.969	1.106	1.00	86.53
	atom	160	CB	PRO	22	19.129	22.266	0.760	1.00	86.09
	atom	161	CG	PRO	22	19.912	22.637	1.961	1.00	85.74
	atom	162	C	PRO	22	19.128	19.792	0.480	1.00	88.37
	atom	163	O	PRO	22	19.907	19.069	1.103	1.00	88.95
	atom	164	N	ILE	23	18.892	19.596	-0.814	1.00	90.04
25	atom	165	CA	ILE	23	19.504	18.531	-1.601	1.00	91.20
	atom	166	CB	ILE	23	18.624	18.197	-2.820	1.00	91.67
	atom	167	CG2	ILE	23	19.190	17.015	-3.594	1.00	92.15
	atom	168	CG1	ILE	23	17.181	17.929	-2.387	1.00	91.61
30	atom	169	CD1	ILE	23	16.983	16.798	-1.405	1.00	91.74
	atom	170	C	ILE	23	20.905	18.936	-2.043	1.00	91.77
	atom	171	O	ILE	23	21.098	19.513	-3.112	1.00	91.80
	atom	172	N	ASN	24	21.889	18.647	-1.196	1.00	92.21
35	atom	173	CA	ASN	24	23.277	18.997	-1.466	1.00	92.31
	atom	174	CB	ASN	24	23.737	20.109	-0.524	1.00	94.23
	atom	175	CG	ASN	24	25.223	20.382	-0.563	1.00	95.58
	atom	176	OD1	ASN	24	25.890	20.202	-1.584	1.00	96.47

	atom	177	ND2	ASN	24	25.764	20.818	0.567	1.00	96.25
	atom	178	C	ASN	24	24.191	17.783	-1.348	1.00	91.74
	atom	179	O	ASN	24	24.074	16.955	-0.447	1.00	91.73
	atom	180	N	ALA	25	25.150	17.712	-2.268	1.00	90.74
5	atom	181	CA	ALA	25	26.105	16.617	-2.308	1.00	89.35
	atom	182	CB	ALA	25	26.779	16.552	-3.672	1.00	90.14
	atom	183	C	ALA	25	27.152	16.711	-1.207	1.00	88.10
	atom	184	O	ALA	25	27.636	15.669	-0.755	1.00	88.08
	atom	185	N	LEU	26	27.491	17.917	-0.763	1.00	86.59
10	atom	186	CA	LEU	26	28.478	18.075	0.304	1.00	84.50
	atom	187	CB	LEU	26	29.138	19.445	0.243	1.00	85.13
	atom	188	CG	LEU	26	30.578	19.586	0.748	1.00	85.62
	atom	189	CD1	LEU	26	31.520	18.619	0.033	1.00	86.28
	atom	190	CD2	LEU	26	31.073	21.011	0.482	1.00	85.78
15	atom	191	C	LEU	26	27.849	17.800	1.667	1.00	82.81
	atom	192	O	LEU	26	28.544	17.366	2.589	1.00	82.13
	atom	193	N	SER	27	26.541	18.014	1.793	1.00	81.07
	atom	194	CA	SER	27	25.827	17.749	3.031	1.00	78.89
	atom	195	CB	SER	27	24.477	18.450	3.082	1.00	79.48
20	atom	196	OG	SER	27	23.510	17.798	2.275	1.00	80.57
	atom	197	C	SER	27	25.611	16.249	3.205	1.00	77.65
	atom	198	O	SER	27	25.787	15.723	4.308	1.00	77.29
	atom	199	N	ASN	28	25.314	15.537	2.110	1.00	75.91
	atom	200	CA	ASN	28	25.118	14.090	2.180	1.00	74.01
25	atom	201	CB	ASN	28	24.601	13.464	0.892	1.00	77.84
	atom	202	CG	ASN	28	25.639	12.937	-0.073	1.00	80.62
	atom	203	OD1	ASN	28	26.330	11.939	0.167	1.00	82.15
	atom	204	ND2	ASN	28	25.778	13.604	-1.216	1.00	81.65
	atom	205	C	ASN	28	26.410	13.405	2.617	1.00	71.58
30	atom	206	O	ASN	28	26.422	12.379	3.291	1.00	71.16
	atom	207	N	SER	29	27.545	13.972	2.236	1.00	69.48
	atom	208	CA	SER	29	28.874	13.531	2.610	1.00	66.84
	atom	209	CB	SER	29	29.894	14.580	2.152	1.00	67.30
	atom	210	OG	SER	29	31.223	14.100	2.189	1.00	67.93
35	atom	211	C	SER	29	28.989	13.314	4.119	1.00	64.86
	atom	212	O	SER	29	29.578	12.319	4.553	1.00	64.88

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5	atom	213	N	LEU	30	28.429	14.214	4.921	1.00	61.99
	atom	214	CA	LEU	30	28.437	14.096	6.363	1.00	59.28
	atom	215	CB	LEU	30	28.273	15.469	7.011	1.00	57.26
	atom	216	CG	LEU	30	29.093	15.827	8.247	1.00	55.69
	atom	217	CD1	LEU	30	28.493	17.089	8.879	1.00	55.27
10	atom	218	CD2	LEU	30	29.189	14.727	9.280	1.00	53.50
	atom	219	C	LEU	30	27.358	13.153	6.882	1.00	57.55
	atom	220	O	LEU	30	27.716	12.215	7.592	1.00	57.89
	atom	221	N	LEU	31	26.077	13.390	6.639	1.00	56.00
	atom	222	CA	LEU	31	25.061	12.453	7.152	1.00	54.63
15	atom	223	CB	LEU	31	24.421	12.925	8.442	1.00	52.22
	atom	224	CG	LEU	31	23.524	14.157	8.464	1.00	50.49
	atom	225	CD1	LEU	31	22.123	13.818	7.970	1.00	48.56
	atom	226	CD2	LEU	31	23.460	14.755	9.864	1.00	48.41
	atom	227	C	LEU	31	24.066	12.167	6.030	1.00	53.76
20	atom	228	O	LEU	31	23.695	13.079	5.290	1.00	53.21
	atom	229	N	ALA	32	23.686	10.906	5.890	1.00	53.25
	atom	230	CA	ALA	32	22.805	10.470	4.817	1.00	52.62
	atom	231	CB	ALA	32	23.105	9.008	4.481	1.00	51.97
	atom	232	C	ALA	32	21.333	10.628	5.143	1.00	52.49
25	atom	233	O	ALA	32	20.537	10.911	4.239	1.00	52.30
	atom	234	N	HIS	33	20.935	10.485	6.408	1.00	52.12
	atom	235	CA	HIS	33	19.525	10.623	6.760	1.00	52.10
	atom	236	CB	HIS	33	19.203	9.853	8.038	1.00	50.55
	atom	237	CG	HIS	33	19.707	8.450	8.102	1.00	49.72
30	atom	238	CD2	HIS	33	19.745	7.574	9.139	1.00	48.19
	atom	239	ND1	HIS	33	20.228	7.780	7.014	1.00	49.49
	atom	240	CE1	HIS	33	20.573	6.560	7.392	1.00	49.32
	atom	241	NE2	HIS	33	20.290	6.412	8.677	1.00	47.18
	atom	242	C	HIS	33	19.099	12.078	6.906	1.00	52.75
35	atom	243	O	HIS	33	18.701	12.544	7.978	1.00	52.91
	atom	244	N	HIS	34	19.087	12.840	5.824	1.00	53.30
	atom	245	CA	HIS	34	18.733	14.242	5.790	1.00	54.14
	atom	246	CB	HIS	34	18.958	14.814	4.389	1.00	55.06
	atom	247	CG	HIS	34	18.052	14.209	3.361	1.00	56.41
	atom	248	CD2	HIS	34	16.742	14.415	3.093	1.00	57.74

5	atom	249	ND1	HIS	34	18.477	13.263	2.455	1.00	56.68
	atom	250	CE1	HIS	34	17.470	12.913	1.677	1.00	57.31
	atom	251	NE2	HIS	34	16.400	13.591	2.046	1.00	57.46
	atom	252	C	HIS	34	17.299	14.514	6.218	1.00	54.70
	atom	253	O	HIS	34	16.991	15.575	6.769	1.00	54.03
	atom	254	N	ASN	35	16.401	13.544	6.042	1.00	54.88
	atom	255	CA	ASN	35	15.019	13.695	6.444	1.00	55.81
	atom	256	CB	ASN	35	14.130	12.520	6.023	1.00	57.87
10	atom	257	CG	ASN	35	13.729	12.545	4.567	1.00	59.00
	atom	258	OD1	ASN	35	13.223	13.553	4.066	1.00	59.97
	atom	259	ND2	ASN	35	13.963	11.422	3.901	1.00	59.90
	atom	260	C	ASN	35	14.813	13.876	7.943	1.00	55.51
15	atom	261	O	ASN	35	13.693	14.248	8.318	1.00	55.52
	atom	262	N	MET	36	15.792	13.604	8.797	1.00	55.29
	atom	263	CA	MET	36	15.595	13.787	10.230	1.00	54.58
	atom	264	CB	MET	36	16.036	12.540	10.976	1.00	53.90
	atom	265	CG	MET	36	17.441	12.040	10.726	1.00	55.33
	atom	266	SD	MET	36	17.657	10.292	11.131	1.00	53.50
20	atom	267	CE	MET	36	16.721	10.170	12.652	1.00	53.11
	atom	268	C	MET	36	16.218	15.068	10.765	1.00	54.43
	atom	269	O	MET	36	16.223	15.320	11.975	1.00	53.41
	atom	270	N	VAL	37	16.733	15.917	9.880	1.00	54.25
25	atom	271	CA	VAL	37	17.304	17.206	10.286	1.00	54.04
	atom	272	CB	VAL	37	18.595	17.558	9.540	1.00	52.81
	atom	273	CG1	VAL	37	19.191	18.894	9.947	1.00	51.32
	atom	274	CG2	VAL	37	19.626	16.459	9.796	1.00	52.64
	atom	275	C	VAL	37	16.229	18.257	10.025	1.00	53.96
	atom	276	O	VAL	37	15.707	18.243	8.908	1.00	54.73
30	atom	277	N	TYR	38	15.873	19.073	11.010	1.00	53.59
	atom	278	CA	TYR	38	14.809	20.051	10.757	1.00	52.71
	atom	279	CB	TYR	38	13.479	19.447	11.198	1.00	52.45
	atom	280	CG	TYR	38	13.317	19.347	12.697	1.00	53.31
35	atom	281	CD1	TYR	38	12.697	20.357	13.427	1.00	52.98
	atom	282	CE1	TYR	38	12.551	20.263	14.799	1.00	52.88
	atom	283	CD2	TYR	38	13.792	18.242	13.391	1.00	53.50
	atom	284	CE2	TYR	38	13.635	18.141	14.763	1.00	53.26

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	atom	285	CZ	TYR	38	13.022	19.152	15.465	1.00	53.19
	atom	286	OH	TYR	38	12.871	19.052	16.832	1.00	52.72
	atom	287	C	TYR	38	15.069	21.381	11.446	1.00	51.93
	atom	288	O	TYR	38	15.951	21.468	12.307	1.00	52.29
5	atom	289	N	ALA	39	14.279	22.392	11.097	1.00	50.25
	atom	290	CA	ALA	39	14.440	23.702	11.723	1.00	49.26
	atom	291	CB	ALA	39	15.096	24.669	10.761	1.00	45.03
	atom	292	C	ALA	39	13.111	24.247	12.241	1.00	49.15
	atom	293	O	ALA	39	12.069	24.102	11.619	1.00	49.04
10	atom	294	N	THR	40	13.140	24.859	13.420	1.00	48.90
	atom	295	CA	THR	40	11.977	25.487	14.010	1.00	48.54
	atom	296	CB	THR	40	12.243	25.928	15.463	1.00	48.35
	atom	297	OG1	THR	40	13.371	26.808	15.563	1.00	48.45
	atom	298	CG2	THR	40	12.479	24.730	16.373	1.00	45.92
15	atom	299	C	THR	40	11.582	26.698	13.161	1.00	48.73
	atom	300	O	THR	40	12.460	27.366	12.611	1.00	48.50
	atom	301	N	THR	41	10.292	26.922	12.948	1.00	48.44
	atom	302	CA	THR	41	9.792	28.058	12.204	1.00	48.28
	atom	303	CB	THR	41	9.183	27.844	10.806	1.00	48.31
20	atom	304	OG1	THR	41	7.903	27.197	10.961	1.00	44.40
	atom	305	CG2	THR	41	10.089	27.066	9.870	1.00	49.21
	atom	306	C	THR	41	8.641	28.663	13.032	1.00	47.97
	atom	307	O	THR	41	8.184	28.107	14.021	1.00	47.57
	atom	308	N	SER	42	8.127	29.765	12.539	1.00	47.83
25	atom	309	CA	SER	42	6.986	30.482	13.071	1.00	48.76
	atom	310	CB	SER	42	6.708	31.659	12.115	1.00	50.85
	atom	311	OG	SER	42	6.426	32.845	12.823	1.00	53.24
	atom	312	C	SER	42	5.723	29.645	13.189	1.00	48.46
	atom	313	O	SER	42	4.942	29.828	14.125	1.00	48.42
30	atom	314	N	ARG	43	5.474	28.667	12.328	1.00	48.84
	atom	315	CA	ARG	43	4.312	27.807	12.327	1.00	48.83
	atom	316	CB	ARG	43	4.350	26.805	11.157	1.00	50.73
	atom	317	CG	ARG	43	4.431	27.467	9.791	1.00	54.10
	atom	318	CD	ARG	43	5.195	26.586	8.800	1.00	55.79
35	atom	319	NE	ARG	43	6.033	27.464	7.979	1.00	58.33
	atom	320	CZ	ARG	43	7.260	27.187	7.564	1.00	59.19

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	atom	321	NH1	ARG	43	7.805	26.025	7.901	1.00	60.73
	atom	322	NH2	ARG	43	7.931	28.066	6.828	1.00	59.48
	atom	323	C	ARG	43	4.104	27.007	13.602	1.00	48.20
	atom	324	O	ARG	43	2.968	26.556	13.832	1.00	49.47
5	atom	325	N	SER	44	5.110	26.779	14.434	1.00	46.74
	atom	326	CA	SER	44	4.890	26.045	15.672	1.00	45.71
	atom	327	CB	SER	44	5.960	24.983	15.856	1.00	45.95
	atom	328	OG	SER	44	7.231	25.490	16.180	1.00	47.64
	atom	329	C	SER	44	4.809	26.980	16.871	1.00	45.68
10	atom	330	O	SER	44	4.743	26.565	18.038	1.00	45.69
	atom	331	N	ALA	45	4.737	28.284	16.618	1.00	44.63
	atom	332	CA	ALA	45	4.626	29.302	17.647	1.00	43.46
	atom	333	CB	ALA	45	4.431	30.671	16.992	1.00	45.20
	atom	334	C	ALA	45	3.484	29.026	18.605	1.00	42.81
15	atom	335	O	ALA	45	3.607	29.072	19.832	1.00	42.05
	atom	336	N	GLY	46	2.316	28.703	18.035	1.00	42.83
	atom	337	CA	GLY	46	1.136	28.394	18.830	1.00	41.71
	atom	338	C	GLY	46	1.381	27.236	19.772	1.00	41.75
	atom	339	O	GLY	46	0.927	27.218	20.921	1.00	42.40
20	atom	340	N	LEU	47	2.110	26.215	19.326	1.00	42.01
	atom	341	CA	LEU	47	2.424	25.067	20.175	1.00	41.56
	atom	342	CB	LEU	47	3.123	23.988	19.373	1.00	43.61
	atom	343	CG	LEU	47	2.332	22.847	18.748	1.00	45.80
	atom	344	CD1	LEU	47	0.856	23.168	18.590	1.00	47.20
25	atom	345	CD2	LEU	47	2.930	22.494	17.388	1.00	46.43
	atom	346	C	LEU	47	3.281	25.488	21.357	1.00	41.27
	atom	347	O	LEU	47	3.053	25.028	22.477	1.00	40.42
	atom	348	N	ARG	48	4.232	26.389	21.104	1.00	41.50
	atom	349	CA	ARG	48	5.112	26.899	22.149	1.00	41.92
30	atom	350	CB	ARG	48	6.274	27.674	21.523	1.00	44.19
	atom	351	CG	ARG	48	7.347	28.133	22.505	1.00	44.56
	atom	352	CD	ARG	48	8.174	26.939	22.966	1.00	45.68
	atom	353	NE	ARG	48	8.853	27.215	24.210	1.00	47.69
	atom	354	CZ	ARG	48	9.410	26.331	25.028	1.00	49.16
35	atom	355	NH1	ARG	48	9.380	25.034	24.746	1.00	48.49
	atom	356	NH2	ARG	48	9.992	26.796	26.136	1.00	48.32

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	atom	357	C	ARG	48	4.343	27.771	23.131	1.00	42.13
	atom	358	O	ARG	48	4.549	27.800	24.350	1.00	41.64
	atom	359	N	GLN	49	3.364	28.505	22.599	1.00	42.92
	atom	360	CA	GLN	49	2.523	29.374	23.418	1.00	43.03
5	atom	361	CB	GLN	49	1.561	30.183	22.550	1.00	43.25
	atom	362	CG	GLN	49	2.244	31.328	21.818	1.00	44.34
	atom	363	CD	GLN	49	1.242	32.087	20.969	1.00	45.10
	atom	364	OE1	GLN	49	0.585	33.009	21.441	1.00	44.29
	atom	365	NE2	GLN	49	1.118	31.697	19.705	1.00	46.35
10	atom	366	C	GLN	49	1.742	28.580	24.456	1.00	43.20
	atom	367	O	GLN	49	1.676	28.974	25.629	1.00	41.94
	atom	368	N	LYS	50	1.156	27.463	24.011	1.00	43.29
	atom	369	CA	LYS	50	0.391	26.629	24.939	1.00	44.77
	atom	370	CB	LYS	50	-0.279	25.442	24.254	1.00	47.32
15	atom	371	CG	LYS	50	-1.033	24.516	25.199	1.00	50.97
	atom	372	CD	LYS	50	-2.022	23.624	24.455	1.00	55.32
	atom	373	CE	LYS	50	-3.056	23.032	25.404	1.00	57.88
	atom	374	NZ	LYS	50	-4.351	22.748	24.715	1.00	59.50
	atom	375	C	LYS	50	1.276	26.160	26.092	1.00	44.30
20	atom	376	O	LYS	50	0.921	26.325	27.258	1.00	43.80
	atom	377	N	LYS	51	2.449	25.623	25.769	1.00	44.24
	atom	378	CA	LYS	51	3.389	25.142	26.766	1.00	44.13
	atom	379	CB	LYS	51	4.618	24.490	26.111	1.00	46.99
	atom	380	CG	LYS	51	5.474	23.712	27.114	1.00	49.28
25	atom	381	CD	LYS	51	6.606	22.970	26.418	1.00	51.45
	atom	382	CE	LYS	51	7.582	22.358	27.401	1.00	51.69
	atom	383	NZ	LYS	51	8.976	22.274	26.875	1.00	52.67
	atom	384	C	LYS	51	3.875	26.203	27.742	1.00	43.37
	atom	385	O	LYS	51	3.964	25.892	28.934	1.00	42.33
30	atom	386	N	VAL	52	4.180	27.422	27.288	1.00	42.47
	atom	387	CA	VAL	52	4.672	28.422	28.236	1.00	41.76
	atom	388	CB	VAL	52	5.690	29.374	27.563	1.00	40.97
	atom	389	CG1	VAL	52	6.842	28.566	26.982	1.00	38.70
	atom	390	CG2	VAL	52	5.013	30.271	26.546	1.00	39.51
35	atom	391	C	VAL	52	3.632	29.267	28.953	1.00	40.69
	atom	392	O	VAL	52	3.994	30.180	29.694	1.00	40.46

	atom	393	N	THR	53	2.351	29.009	28.775	1.00	40.57
	atom	394	CA	THR	53	1.281	29.788	29.365	1.00	39.05
	atom	395	CB	THR	53	0.285	30.247	28.286	1.00	37.45
	atom	396	OG1	THR	53	0.986	31.005	27.294	1.00	36.00
5	atom	397	CG2	THR	53	-0.863	31.066	28.854	1.00	34.34
	atom	398	C	THR	53	0.544	28.973	30.414	1.00	40.24
	atom	399	O	THR	53	-0.090	27.956	30.137	1.00	39.97
	atom	400	N	PHE	54	0.668	29.421	31.661	1.00	40.35
	atom	401	CA	PHE	54	0.028	28.730	32.772	1.00	40.53
10	atom	402	CB	PHE	54	0.741	27.419	33.082	1.00	39.02
	atom	403	CG	PHE	54	2.216	27.589	33.348	1.00	37.12
	atom	404	CD1	PHE	54	2.685	27.847	34.617	1.00	36.56
	atom	405	CD2	PHE	54	3.123	27.462	32.308	1.00	36.96
	atom	406	CE1	PHE	54	4.034	28.017	34.858	1.00	37.14
15	atom	407	CE2	PHE	54	4.482	27.620	32.524	1.00	37.52
	atom	408	CZ	PHE	54	4.928	27.913	33.799	1.00	39.42
	atom	409	C	PHE	54	0.027	29.644	33.993	1.00	41.16
	atom	410	O	PHE	54	0.771	30.615	34.060	1.00	40.63
	atom	411	N	ASP	55	-0.829	29.317	34.946	1.00	42.21
20	atom	412	CA	ASP	55	-0.924	30.114	36.162	1.00	43.50
	atom	413	CB	ASP	55	-2.286	29.867	36.806	1.00	45.47
	atom	414	CG	ASP	55	-2.538	30.897	37.886	1.00	48.38
	atom	415	OD1	ASP	55	-2.462	30.536	39.073	1.00	50.47
	atom	416	OD2	ASP	55	-2.794	32.058	37.521	1.00	52.46
25	atom	417	C	ASP	55	0.225	29.735	37.089	1.00	44.10
	atom	418	O	ASP	55	0.533	28.541	37.199	1.00	44.96
	atom	419	N	ARG	56	0.886	30.713	37.683	1.00	43.47
	atom	420	CA	ARG	56	1.977	30.419	38.594	1.00	43.79
	atom	421	CB	ARG	56	3.200	31.307	38.415	1.00	40.17
30	atom	422	CG	ARG	56	4.137	30.963	37.269	1.00	38.01
	atom	423	CD	ARG	56	3.599	31.432	35.918	1.00	35.65
	atom	424	NE	ARG	56	3.148	32.828	36.030	1.00	36.10
	atom	425	CZ	ARG	56	3.947	33.893	36.057	1.00	34.55
	atom	426	NH1	ARG	56	5.264	33.729	35.958	1.00	31.83
35	atom	427	NH2	ARG	56	3.419	35.108	36.182	1.00	33.37
	atom	428	C	ARG	56	1.443	30.559	40.025	1.00	45.01

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	atom	429	O	ARG	56	0.811	31.541	40.411	1.00	45.26
	atom	430	N	LEU	57	1.716	29.537	40.819	1.00	45.63
	atom	431	CA	LEU	57	1.332	29.560	42.231	1.00	46.04
	atom	432	CB	LEU	57	0.370	28.435	42.561	1.00	48.09
5	atom	433	CG	LEU	57	-0.926	28.822	43.270	1.00	48.40
	atom	434	CD1	LEU	57	-1.702	29.835	42.446	1.00	47.65
	atom	435	CD2	LEU	57	-1.763	27.573	43.528	1.00	48.93
	atom	436	C	LEU	57	2.651	29.388	42.977	1.00	45.34
	atom	437	O	LEU	57	3.413	28.495	42.582	1.00	47.21
10	atom	438	N	GLN	58	2.942	30.268	43.912	1.00	43.82
	atom	439	CA	GLN	58	4.248	30.144	44.560	1.00	43.34
	atom	440	CB	GLN	58	5.187	31.190	43.982	1.00	42.19
	atom	441	CG	GLN	58	6.488	31.460	44.721	1.00	39.25
	atom	442	CD	GLN	58	7.362	32.418	43.912	1.00	37.12
15	atom	443	OE1	GLN	58	8.485	32.091	43.537	1.00	34.57
	atom	444	NE2	GLN	58	6.820	33.596	43.627	1.00	35.00
	atom	445	C	GLN	58	4.061	30.244	46.059	1.00	43.03
	atom	446	O	GLN	58	3.588	31.271	46.525	1.00	43.40
	atom	447	N	VAL	59	4.377	29.151	46.743	1.00	41.98
20	atom	448	CA	VAL	59	4.274	29.101	48.183	1.00	42.02
	atom	449	CB	VAL	59	3.437	27.903	48.677	1.00	42.96
	atom	450	CG1	VAL	59	3.303	27.942	50.195	1.00	41.64
	atom	451	CG2	VAL	59	2.080	27.902	47.985	1.00	38.98
	atom	452	C	VAL	59	5.680	29.006	48.767	1.00	42.52
25	atom	453	O	VAL	59	6.373	28.021	48.533	1.00	41.65
	atom	454	N	LEU	60	6.068	30.004	49.543	1.00	42.60
	atom	455	CA	LEU	60	7.391	30.023	50.130	1.00	43.86
	atom	456	CB	LEU	60	7.970	31.435	49.975	1.00	45.44
	atom	457	CG	LEU	60	7.958	32.047	48.573	1.00	45.19
30	atom	458	CD1	LEU	60	8.240	33.541	48.674	1.00	44.60
	atom	459	CD2	LEU	60	8.988	31.441	47.635	1.00	45.05
	atom	460	C	LEU	60	7.436	29.616	51.592	1.00	44.33
	atom	461	O	LEU	60	6.433	29.550	52.287	1.00	45.34
	atom	462	N	ASP	61	8.647	29.329	52.061	1.00	44.64
35	atom	463	CA	ASP	61	8.856	28.889	53.436	1.00	44.80
	atom	464	CB	ASP	61	9.066	27.376	53.544	1.00	45.10

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	atom	465	CG	ASP	61	9.891	26.785	52.414	1.00	47.12
	atom	466	OD1	ASP	61	9.279	25.969	51.681	1.00	49.15
	atom	467	OD2	ASP	61	11.086	27.118	52.266	1.00	43.75
	atom	468	C	ASP	61	10.077	29.571	54.025	1.00	44.62
5	atom	469	O	ASP	61	10.710	30.383	53.368	1.00	44.15
	atom	470	N	ASP	62	10.418	29.205	55.255	1.00	44.61
	atom	471	CA	ASP	62	11.567	29.744	55.953	1.00	44.62
	atom	472	CB	ASP	62	11.575	29.238	57.403	1.00	48.07
	atom	473	CG	ASP	62	10.507	29.864	58.281	1.00	52.35
10	atom	474	OD1	ASP	62	9.967	30.941	57.935	1.00	53.35
	atom	475	OD2	ASP	62	10.189	29.281	59.345	1.00	54.48
	atom	476	C	ASP	62	12.898	29.394	55.297	1.00	44.21
	atom	477	O	ASP	62	13.898	30.093	55.497	1.00	43.37
	atom	478	N	HIS	63	12.948	28.269	54.582	1.00	43.04
15	atom	479	CA	HIS	63	14.163	27.816	53.926	1.00	42.55
	atom	480	CB	HIS	63	14.024	26.418	53.340	1.00	41.62
	atom	481	CG	HIS	63	14.144	25.314	54.345	1.00	42.36
	atom	482	CD2	HIS	63	13.461	24.143	54.473	1.00	41.51
	atom	483	ND1	HIS	63	15.065	25.329	55.372	1.00	41.21
20	atom	484	CE1	HIS	63	14.956	24.226	56.085	1.00	39.97
	atom	485	NE2	HIS	63	13.988	23.488	55.568	1.00	40.36
	atom	486	C	HIS	63	14.547	28.830	52.840	1.00	41.85
	atom	487	O	HIS	63	15.687	29.286	52.775	1.00	40.79
	atom	488	N	TYR	64	13.553	29.190	52.040	1.00	40.61
25	atom	489	CA	TYR	64	13.711	30.205	51.012	1.00	41.03
	atom	490	CB	TYR	64	12.373	30.445	50.344	1.00	41.17
	atom	491	CG	TYR	64	12.293	31.446	49.218	1.00	41.91
	atom	492	CD1	TYR	64	12.546	31.078	47.902	1.00	41.84
	atom	493	CE1	TYR	64	12.432	31.984	46.862	1.00	42.35
30	atom	494	CD2	TYR	64	11.918	32.757	49.457	1.00	41.85
	atom	495	CE2	TYR	64	11.802	33.676	48.428	1.00	42.23
	atom	496	CZ	TYR	64	12.063	33.284	47.132	1.00	42.53
	atom	497	OH	TYR	64	11.965	34.216	46.133	1.00	41.63
	atom	498	C	TYR	64	14.222	31.492	51.674	1.00	40.73
35	atom	499	O	TYR	64	15.320	31.973	51.423	1.00	38.94
	atom	500	N	ARG	65	13.433	31.982	52.625	1.00	40.55

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	atom	501	CA	ARG	65	13.727	33.172	53.393	1.00	40.28
	atom	502	CB	ARG	65	12.651	33.378	54.476	1.00	38.44
	atom	503	CG	ARG	65	11.305	33.752	53.853	1.00	38.51
	atom	504	CD	ARG	65	10.210	33.633	54.908	1.00	39.11
5	atom	505	NE	ARG	65	8.908	33.501	54.267	1.00	38.37
	atom	506	CZ	ARG	65	7.999	32.601	54.625	1.00	37.39
	atom	507	NH1	ARG	65	8.270	31.746	55.603	1.00	36.19
	atom	508	NH2	ARG	65	6.831	32.542	54.001	1.00	36.67
	atom	509	C	ARG	65	15.110	33.179	54.017	1.00	40.14
10	atom	510	O	ARG	65	15.751	34.238	53.963	1.00	39.16
	atom	511	N	ASP	66	15.564	32.075	54.599	1.00	40.51
	atom	512	CA	ASP	66	16.892	32.061	55.203	1.00	41.32
	atom	513	CB	ASP	66	17.135	30.838	56.077	1.00	44.20
	atom	514	CG	ASP	66	16.252	30.712	57.293	1.00	45.90
15	atom	515	OD1	ASP	66	15.661	31.724	57.719	1.00	47.48
	atom	516	OD2	ASP	66	16.157	29.573	57.806	1.00	47.90
	atom	517	C	ASP	66	17.982	32.115	54.130	1.00	40.88
	atom	518	O	ASP	66	19.035	32.702	54.361	1.00	40.92
	atom	519	N	VAL	67	17.750	31.516	52.961	1.00	39.84
20	atom	520	CA	VAL	67	18.729	31.536	51.882	1.00	38.05
	atom	521	CB	VAL	67	18.414	30.468	50.826	1.00	37.62
	atom	522	CG1	VAL	67	19.327	30.630	49.612	1.00	37.66
	atom	523	CG2	VAL	67	18.496	29.060	51.388	1.00	33.64
	atom	524	C	VAL	67	18.768	32.926	51.241	1.00	37.95
25	atom	525	O	VAL	67	19.834	33.459	50.909	1.00	36.06
	atom	526	N	LEU	68	17.596	33.552	51.148	1.00	37.45
	atom	527	CA	LEU	68	17.463	34.886	50.591	1.00	38.57
	atom	528	CB	LEU	68	16.009	35.312	50.459	1.00	37.68
	atom	529	CG	LEU	68	15.562	36.269	49.361	1.00	38.19
30	atom	530	CD1	LEU	68	14.223	36.915	49.722	1.00	36.22
	atom	531	CD2	LEU	68	16.573	37.351	49.033	1.00	39.57
	atom	532	C	LEU	68	18.176	35.899	51.487	1.00	39.41
	atom	533	O	LEU	68	18.879	36.792	51.019	1.00	38.99
	atom	534	N	LYS	69	18.038	35.727	52.801	1.00	39.99
35	atom	535	CA	LYS	69	18.680	36.619	53.765	1.00	40.29
	atom	536	CB	LYS	69	18.242	36.283	55.193	1.00	44.44

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5	atom	537	CG	LYS	69	18.492	37.403	56.187	1.00	46.87
	atom	538	CD	LYS	69	18.654	36.869	57.603	1.00	50.33
	atom	539	CE	LYS	69	18.959	38.000	58.583	1.00	52.00
	atom	540	NZ	LYS	69	19.503	37.478	59.869	1.00	51.70
	atom	541	C	LYS	69	20.196	36.507	53.623	1.00	39.36
	atom	542	O	LYS	69	20.955	37.482	53.649	1.00	37.80
	atom	543	N	GLU	70	20.654	35.264	53.437	1.00	38.54
	atom	544	CA	GLU	70	22.088	35.043	53.229	1.00	37.60
10	atom	545	CB	GLU	70	22.394	33.556	53.273	1.00	37.89
	atom	546	CG	GLU	70	22.067	32.854	54.577	1.00	40.36
	atom	547	CD	GLU	70	22.090	31.341	54.415	1.00	43.66
	atom	548	OE1	GLU	70	22.539	30.874	53.336	1.00	43.89
	atom	549	OE2	GLU	70	21.662	30.622	55.350	1.00	44.51
	atom	550	C	GLU	70	22.571	35.674	51.926	1.00	36.36
	atom	551	O	GLU	70	23.690	36.190	51.909	1.00	36.24
	atom	552	N	MET	71	21.775	35.667	50.864	1.00	35.24
20	atom	553	CA	MET	71	22.157	36.253	49.583	1.00	35.02
	atom	554	CB	MET	71	21.215	35.808	48.460	1.00	31.17
	atom	555	CG	MET	71	21.230	34.304	48.229	1.00	27.39
	atom	556	SD	MET	71	19.954	33.721	47.123	1.00	28.75
	atom	557	CE	MET	71	20.529	34.376	45.543	1.00	25.70
	atom	558	C	MET	71	22.228	37.774	49.637	1.00	35.53
	atom	559	O	MET	71	23.190	38.364	49.118	1.00	36.06
	atom	560	N	LYS	72	21.282	38.400	50.335	1.00	35.34
25	atom	561	CA	LYS	72	21.287	39.850	50.480	1.00	35.57
	atom	562	CB	LYS	72	19.926	40.327	50.982	1.00	35.91
	atom	563	CG	LYS	72	18.845	40.008	49.952	1.00	38.77
	atom	564	CD	LYS	72	17.684	40.961	49.925	1.00	39.60
30	atom	565	CE	LYS	72	16.566	40.684	50.896	1.00	41.24
	atom	566	NZ	LYS	72	15.271	41.256	50.404	1.00	41.43
	atom	567	C	LYS	72	22.452	40.333	51.325	1.00	35.53
	atom	568	O	LYS	72	23.041	41.388	51.061	1.00	35.89
	atom	569	N	ALA	73	22.887	39.548	52.307	1.00	35.15
35	atom	570	CA	ALA	73	24.029	39.893	53.139	1.00	34.59
	atom	571	CB	ALA	73	24.129	38.997	54.353	1.00	32.33
	atom	572	C	ALA	73	25.314	39.857	52.308	1.00	35.26

5	atom	573	O	ALA	73	26.144	40.761	52.448	1.00	34.70
	atom	574	N	LYS	74	25.450	38.888	51.398	1.00	35.03
	atom	575	CA	LYS	74	26.622	38.885	50.533	1.00	36.44
	atom	576	CB	LYS	74	26.820	37.552	49.818	1.00	40.17
	atom	577	CG	LYS	74	26.601	36.331	50.689	1.00	42.89
	atom	578	CD	LYS	74	27.439	35.132	50.258	1.00	45.10
	atom	579	CE	LYS	74	26.789	33.818	50.693	1.00	46.50
	atom	580	NZ	LYS	74	25.392	33.634	50.179	1.00	44.34
10	atom	581	C	LYS	74	26.535	40.025	49.514	1.00	36.36
	atom	582	O	LYS	74	27.524	40.695	49.197	1.00	35.71
	atom	583	N	ALA	75	25.314	40.284	49.033	1.00	35.85
	atom	584	CA	ALA	75	25.084	41.332	48.049	1.00	35.98
	atom	585	CB	ALA	75	23.638	41.339	47.578	1.00	30.21
	atom	586	C	ALA	75	25.504	42.678	48.602	1.00	36.82
15	atom	587	O	ALA	75	26.116	43.503	47.918	1.00	37.93
	atom	588	N	SER	76	25.272	42.924	49.888	1.00	37.57
	atom	589	CA	SER	76	25.602	44.134	50.605	1.00	37.59
	atom	590	CB	SER	76	24.977	44.114	52.010	1.00	37.62
20	atom	591	OG	SER	76	23.552	44.121	51.919	1.00	40.32
	atom	592	C	SER	76	27.084	44.445	50.708	1.00	37.58
	atom	593	O	SER	76	27.446	45.555	51.136	1.00	39.39
	atom	594	N	THR	77	27.965	43.567	50.288	1.00	36.91
	atom	595	CA	THR	77	29.406	43.791	50.257	1.00	36.16
	atom	596	CB	THR	77	30.193	42.504	50.599	1.00	33.95
25	atom	597	OG1	THR	77	30.040	41.601	49.495	1.00	35.78
	atom	598	CG2	THR	77	29.625	41.864	51.862	1.00	32.60
	atom	599	C	THR	77	29.841	44.217	48.858	1.00	35.36
30	atom	600	O	THR	77	30.974	44.657	48.651	1.00	35.65
	atom	601	N	VAL	78	28.931	44.110	47.890	1.00	34.69
	atom	602	CA	VAL	78	29.254	44.451	46.499	1.00	33.38
	atom	603	CB	VAL	78	28.442	43.546	45.556	1.00	30.05
	atom	604	CG1	VAL	78	28.744	43.788	44.101	1.00	27.71
	atom	605	CG2	VAL	78	28.716	42.086	45.935	1.00	30.64
	atom	606	C	VAL	78	29.070	45.919	46.151	1.00	33.45
	atom	607	O	VAL	78	28.065	46.552	46.493	1.00	33.19
35	atom	608	N	LYS	79	30.084	46.465	45.453	1.00	32.83

5	atom	609	CA	LYS	79	30.019	47.870	45.037	1.00	32.01
	atom	610	CB	LYS	79	31.137	48.731	45.608	1.00	29.97
	atom	611	CG	LYS	79	30.777	50.201	45.532	1.00	33.49
	atom	612	CD	LYS	79	31.912	51.115	45.141	1.00	34.72
	atom	613	CE	LYS	79	31.432	52.568	45.144	1.00	37.97
	atom	614	NZ	LYS	79	31.200	52.956	46.577	1.00	42.83
	atom	615	C	LYS	79	30.047	47.890	43.514	1.00	31.34
10	atom	616	O	LYS	79	30.784	47.069	42.962	1.00	32.09
	atom	617	N	ALA	80	29.209	48.700	42.862	1.00	30.61
	atom	618	CA	ALA	80	29.157	48.630	41.397	1.00	29.02
	atom	619	CB	ALA	80	28.098	47.645	40.945	1.00	27.11
	atom	620	C	ALA	80	28.927	50.026	40.855	1.00	29.80
	atom	621	O	ALA	80	28.348	50.845	41.556	1.00	29.38
	atom	622	N	LYS	81	29.433	50.284	39.661	1.00	30.05
15	atom	623	CA	LYS	81	29.341	51.600	39.061	1.00	30.27
	atom	624	CB	LYS	81	30.756	52.090	38.681	1.00	31.87
	atom	625	CG	LYS	81	31.374	51.339	37.519	1.00	37.86
	atom	626	CD	LYS	81	32.467	52.105	36.789	1.00	42.99
	atom	627	CE	LYS	81	32.751	51.492	35.417	1.00	47.33
	atom	628	NZ	LYS	81	33.666	52.336	34.571	1.00	49.16
	atom	629	C	LYS	81	28.492	51.632	37.792	1.00	29.77
20	atom	630	O	LYS	81	28.247	50.643	37.111	1.00	28.82
	atom	631	N	LEU	82	28.104	52.852	37.425	1.00	29.31
	atom	632	CA	LEU	82	27.374	53.069	36.199	1.00	29.67
	atom	633	CB	LEU	82	26.804	54.492	36.160	1.00	29.45
	atom	634	CG	LEU	82	25.541	54.704	36.991	1.00	31.17
	atom	635	CD1	LEU	82	25.400	56.191	37.288	1.00	30.63
	atom	636	CD2	LEU	82	24.338	54.144	36.248	1.00	27.47
30	atom	637	C	LEU	82	28.324	52.973	35.004	1.00	29.02
	atom	638	O	LEU	82	29.481	53.380	35.168	1.00	30.17
	atom	639	N	LEU	83	27.828	52.483	33.871	1.00	27.76
	atom	640	CA	LEU	83	28.676	52.574	32.674	1.00	26.06
	atom	641	CB	LEU	83	28.653	51.355	31.787	1.00	25.12
	atom	642	CG	LEU	83	29.775	50.336	32.017	1.00	27.00
	atom	643	CD1	LEU	83	29.738	49.792	33.433	1.00	24.66
35	atom	644	CD2	LEU	83	29.699	49.174	31.026	1.00	25.27

5	atom	645	C	LEU	83	28.200	53.823	31.914	1.00	25.12
	atom	646	O	LEU	83	27.000	54.156	31.940	1.00	23.92
	atom	647	N	SER	84	29.137	54.506	31.270	1.00	23.18
	atom	648	CA	SER	84	28.690	55.674	30.511	1.00	24.40
	atom	649	CB	SER	84	29.912	56.507	30.106	1.00	21.23
10	atom	650	OG	SER	84	30.753	55.636	29.360	1.00	26.21
	atom	651	C	SER	84	27.976	55.183	29.254	1.00	24.25
	atom	652	O	SER	84	28.195	54.037	28.834	1.00	24.11
	atom	653	N	VAL	85	27.278	56.071	28.561	1.00	24.35
	atom	654	CA	VAL	85	26.693	55.755	27.264	1.00	24.12
15	atom	655	CB	VAL	85	26.167	57.028	26.575	1.00	23.28
	atom	656	CG1	VAL	85	25.927	56.800	25.077	1.00	17.75
	atom	657	CG2	VAL	85	24.920	57.608	27.255	1.00	20.76
	atom	658	C	VAL	85	27.786	55.152	26.364	1.00	26.06
	atom	659	O	VAL	85	27.630	54.092	25.734	1.00	25.64
20	atom	660	N	GLU	86	28.944	55.826	26.316	1.00	26.18
	atom	661	CA	GLU	86	30.038	55.358	25.462	1.00	27.19
	atom	662	CB	GLU	86	31.186	56.376	25.451	1.00	27.26
	atom	663	CG	GLU	86	30.791	57.667	24.728	1.00	29.83
	atom	664	CD	GLU	86	30.198	58.734	25.606	1.00	28.64
25	atom	665	OE1	GLU	86	29.920	59.868	25.161	1.00	30.79
	atom	666	OE2	GLU	86	30.020	58.504	26.814	1.00	28.74
	atom	667	C	GLU	86	30.556	53.973	25.799	1.00	27.11
	atom	668	O	GLU	86	30.782	53.190	24.868	1.00	28.14
	atom	669	N	GLU	87	30.715	53.627	27.069	1.00	26.46
30	atom	670	CA	GLU	87	31.212	52.309	27.424	1.00	26.29
	atom	671	CB	GLU	87	31.590	52.207	28.905	1.00	24.60
	atom	672	CG	GLU	87	32.903	52.903	29.252	1.00	21.73
	atom	673	CD	GLU	87	32.969	53.165	30.743	1.00	22.51
	atom	674	OE1	GLU	87	31.933	53.458	31.376	1.00	25.19
35	atom	675	OE2	GLU	87	34.036	53.095	31.352	1.00	22.51
	atom	676	C	GLU	87	30.187	51.238	27.068	1.00	26.24
	atom	677	O	GLU	87	30.609	50.207	26.557	1.00	26.33
	atom	678	N	ALA	88	28.912	51.509	27.329	1.00	25.60
	atom	679	CA	ALA	88	27.830	50.592	27.006	1.00	25.57
	atom	680	CB	ALA	88	26.513	51.155	27.531	1.00	22.54

	atom	681	C	ALA	88	27.743	50.354	25.493	1.00	26.44
	atom	682	O	ALA	88	27.465	49.228	25.058	1.00	25.04
	atom	683	N	CYS	89	27.950	51.428	24.716	1.00	25.77
	atom	684	CA	CYS	89	27.982	51.319	23.266	1.00	26.77
5	atom	685	CB	CYS	89	28.122	52.667	22.552	1.00	25.38
	atom	686	SG	CYS	89	26.685	53.789	22.602	1.00	19.63
	atom	687	C	CYS	89	29.114	50.388	22.829	1.00	27.53
	atom	688	O	CYS	89	28.855	49.422	22.111	1.00	26.89
	atom	689	N	LYS	90	30.344	50.570	23.315	1.00	28.08
10	atom	690	CA	LYS	90	31.486	49.730	22.974	1.00	27.26
	atom	691	CB	LYS	90	32.764	50.306	23.599	1.00	26.77
	atom	692	CG	LYS	90	33.430	51.485	22.932	1.00	28.77
	atom	693	CD	LYS	90	34.004	52.474	23.926	1.00	28.79
	atom	694	CE	LYS	90	34.918	53.546	23.360	1.00	28.74
15	atom	695	NZ	LYS	90	34.777	53.715	21.886	1.00	32.57
	atom	696	C	LYS	90	31.318	48.282	23.417	1.00	28.19
	atom	697	O	LYS	90	31.882	47.334	22.864	1.00	27.49
	atom	698	N	LEU	91	30.570	48.042	24.494	1.00	28.75
	atom	699	CA	LEU	91	30.244	46.706	24.961	1.00	30.16
20	atom	700	CB	LEU	91	30.086	46.655	26.470	1.00	34.90
	atom	701	CG	LEU	91	31.290	46.352	27.359	1.00	36.27
	atom	702	CD1	LEU	91	32.575	46.904	26.792	1.00	35.39
	atom	703	CD2	LEU	91	31.063	46.937	28.755	1.00	36.52
	atom	704	C	LEU	91	28.989	46.160	24.284	1.00	29.92
25	atom	705	O	LEU	91	28.521	45.087	24.656	1.00	30.50
	atom	706	N	THR	92	28.455	46.823	23.275	1.00	30.07
	atom	707	CA	THR	92	27.300	46.330	22.542	1.00	32.39
	atom	708	CB	THR	92	26.568	47.507	21.854	1.00	31.77
	atom	709	OG1	THR	92	25.884	48.248	22.877	1.00	28.62
30	atom	710	CG2	THR	92	25.627	47.052	20.754	1.00	28.77
	atom	711	C	THR	92	27.730	45.309	21.490	1.00	33.38
	atom	712	O	THR	92	28.496	45.634	20.597	1.00	33.88
	atom	713	N	PRO	93	27.199	44.102	21.543	1.00	34.88
	atom	714	CD	PRO	93	26.225	43.644	22.568	1.00	35.43
35	atom	715	CA	PRO	93	27.507	43.061	20.588	1.00	36.36
	atom	716	CB	PRO	93	26.692	41.858	21.025	1.00	36.29

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	atom	717	CG	PRO	93	26.181	42.160	22.383	1.00	35.81
	atom	718	C	PRO	93	27.197	43.491	19.162	1.00	37.78
	atom	719	O	PRO	93	26.209	44.152	18.874	1.00	36.97
	atom	720	N	PRO	94	28.064	43.091	18.239	1.00	39.47
5	atom	721	CD	PRO	94	29.298	42.295	18.533	1.00	39.82
	atom	722	CA	PRO	94	27.992	43.416	16.842	1.00	40.50
	atom	723	CB	PRO	94	29.272	42.830	16.226	1.00	39.92
	atom	724	CG	PRO	94	29.594	41.708	17.168	1.00	40.67
	atom	725	C	PRO	94	26.807	42.904	16.066	1.00	41.64
10	atom	726	O	PRO	94	26.539	43.528	15.017	1.00	43.65
	atom	727	N	HIS	95	26.119	41.824	16.406	1.00	41.97
	atom	728	CA	HIS	95	24.987	41.464	15.531	1.00	43.47
	atom	729	CB	HIS	95	25.139	40.045	14.971	1.00	45.58
	atom	730	CG	HIS	95	26.434	39.875	14.225	1.00	48.05
15	atom	731	CD2	HIS	95	27.510	39.076	14.434	1.00	47.72
	atom	732	ND1	HIS	95	26.729	40.658	13.125	1.00	49.11
	atom	733	CE1	HIS	95	27.927	40.328	12.665	1.00	48.45
	atom	734	NE2	HIS	95	28.409	39.373	13.442	1.00	49.37
	atom	735	C	HIS	95	23.626	41.688	16.181	1.00	43.10
20	atom	736	O	HIS	95	22.665	40.965	15.898	1.00	43.67
	atom	737	N	SER	96	23.495	42.726	16.993	1.00	41.70
	atom	738	CA	SER	96	22.260	43.075	17.667	1.00	39.84
	atom	739	CB	SER	96	22.575	44.220	18.645	1.00	39.09
	atom	740	OG	SER	96	22.614	43.786	19.984	1.00	37.46
25	atom	741	C	SER	96	21.170	43.550	16.721	1.00	38.69
	atom	742	O	SER	96	21.438	44.322	15.796	1.00	39.13
	atom	743	N	ALA	97	19.931	43.173	16.992	1.00	37.32
	atom	744	CA	ALA	97	18.808	43.657	16.186	1.00	36.47
	atom	745	CB	ALA	97	17.505	43.147	16.794	1.00	33.90
30	atom	746	C	ALA	97	18.814	45.186	16.145	1.00	36.20
	atom	747	O	ALA	97	18.901	45.833	17.198	1.00	35.49
	atom	748	N	LYS	98	18.754	45.767	14.964	1.00	36.09
	atom	749	CA	LYS	98	18.775	47.213	14.812	1.00	37.34
	atom	750	CB	LYS	98	18.741	47.613	13.346	1.00	38.64
35	atom	751	CG	LYS	98	17.368	47.680	12.716	1.00	40.70
	atom	752	CD	LYS	98	17.485	47.339	11.233	1.00	45.63

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5	atom	753	CE	LYS	98	16.352	48.015	10.462	1.00	48.60
	atom	754	NZ	LYS	98	16.610	49.489	10.371	1.00	52.60
	atom	755	C	LYS	98	17.606	47.853	15.565	1.00	38.41
	atom	756	O	LYS	98	16.598	47.227	15.882	1.00	38.17
	atom	757	N	SER	99	17.770	49.146	15.867	1.00	38.38
	atom	758	CA	SER	99	16.777	49.921	16.557	1.00	37.73
	atom	759	CB	SER	99	17.383	51.242	17.036	1.00	38.40
	atom	760	OG	SER	99	16.444	52.082	17.719	1.00	37.78
10	atom	761	C	SER	99	15.600	50.236	15.635	1.00	38.93
	atom	762	O	SER	99	15.691	50.376	14.411	1.00	38.97
	atom	763	N	LYS	100	14.462	50.484	16.295	1.00	38.75
	atom	764	CA	LYS	100	13.277	50.942	15.578	1.00	38.63
15	atom	765	CB	LYS	100	11.980	50.645	16.304	1.00	41.47
	atom	766	CG	LYS	100	11.414	49.244	16.149	1.00	46.95
	atom	767	CD	LYS	100	10.441	48.906	17.284	1.00	50.39
	atom	768	CE	LYS	100	9.617	47.668	16.985	1.00	52.31
	atom	769	NZ	LYS	100	8.779	47.226	18.144	1.00	54.91
	atom	770	C	LYS	100	13.463	52.446	15.377	1.00	37.76
	atom	771	O	LYS	100	12.744	53.012	14.570	1.00	37.49
	atom	772	N	PHE	101	14.430	53.104	16.009	1.00	36.57
20	atom	773	CA	PHE	101	14.616	54.547	15.904	1.00	35.11
	atom	774	CB	PHE	101	14.746	55.167	17.318	1.00	34.86
	atom	775	CG	PHE	101	13.545	54.794	18.160	1.00	35.15
	atom	776	CD1	PHE	101	13.599	53.726	19.036	1.00	35.56
25	atom	777	CD2	PHE	101	12.344	55.477	18.028	1.00	36.84
	atom	778	CE1	PHE	101	12.504	53.358	19.799	1.00	36.02
	atom	779	CE2	PHE	101	11.230	55.126	18.774	1.00	35.71
	atom	780	CZ	PHE	101	11.315	54.055	19.655	1.00	36.60
30	atom	781	C	PHE	101	15.718	55.002	14.970	1.00	33.93
	atom	782	O	PHE	101	16.276	56.093	15.040	1.00	32.19
	atom	783	N	GLY	102	16.009	54.182	13.959	1.00	34.44
	atom	784	CA	GLY	102	16.878	54.513	12.852	1.00	32.69
35	atom	785	C	GLY	102	18.339	54.195	12.867	1.00	31.96
	atom	786	O	GLY	102	19.049	54.794	12.059	1.00	32.33
	atom	787	N	TYR	103	18.837	53.334	13.739	1.00	31.53
	atom	788	CA	TYR	103	20.255	53.016	13.788	1.00	31.02

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5	atom	789	CB	TYR	103	20.995	53.944	14.749	1.00	30.17
	atom	790	CG	TYR	103	20.492	53.849	16.167	1.00	31.09
	atom	791	CD1	TYR	103	21.041	52.954	17.089	1.00	30.47
	atom	792	CE1	TYR	103	20.580	52.899	18.389	1.00	28.33
	atom	793	CD2	TYR	103	19.461	54.687	16.588	1.00	30.24
	atom	794	CE2	TYR	103	18.995	54.619	17.882	1.00	29.56
	atom	795	CZ	TYR	103	19.552	53.718	18.775	1.00	28.28
	atom	796	OH	TYR	103	19.063	53.674	20.056	1.00	26.38
10	atom	797	C	TYR	103	20.429	51.558	14.181	1.00	30.53
	atom	798	O	TYR	103	19.469	50.962	14.679	1.00	31.65
	atom	799	N	GLY	104	21.609	51.009	13.954	1.00	29.78
	atom	800	CA	GLY	104	21.889	49.619	14.308	1.00	29.76
15	atom	801	C	GLY	104	23.143	49.447	15.153	1.00	29.99
	atom	802	O	GLY	104	23.791	50.429	15.556	1.00	29.56
	atom	803	N	ALA	105	23.472	48.183	15.431	1.00	30.04
	atom	804	CA	ALA	105	24.627	47.815	16.231	1.00	31.21
	atom	805	CB	ALA	105	24.871	46.308	16.238	1.00	32.66
	atom	806	C	ALA	105	25.933	48.477	15.831	1.00	31.18
	atom	807	O	ALA	105	26.613	49.001	16.720	1.00	32.94
	atom	808	N	LYS	106	26.341	48.457	14.585	1.00	31.82
20	atom	809	CA	LYS	106	27.588	49.096	14.159	1.00	33.16
	atom	810	CB	LYS	106	27.985	48.714	12.736	1.00	36.56
	atom	811	CG	LYS	106	26.892	48.764	11.701	1.00	41.69
	atom	812	CD	LYS	106	27.335	48.256	10.335	1.00	46.79
25	atom	813	CE	LYS	106	26.145	48.016	9.402	1.00	48.15
	atom	814	NZ	LYS	106	26.515	48.303	7.977	1.00	51.74
	atom	815	C	LYS	106	27.528	50.603	14.383	1.00	32.10
	atom	816	O	LYS	106	28.532	51.179	14.775	1.00	31.01
30	atom	817	N	ASP	107	26.380	51.267	14.217	1.00	32.44
	atom	818	CA	ASP	107	26.304	52.691	14.525	1.00	32.34
	atom	819	CB	ASP	107	24.940	53.308	14.262	1.00	32.09
	atom	820	CG	ASP	107	24.534	53.145	12.815	1.00	31.69
35	atom	821	OD1	ASP	107	25.280	53.650	11.959	1.00	34.96
	atom	822	OD2	ASP	107	23.505	52.523	12.520	1.00	32.64
	atom	823	C	ASP	107	26.630	52.884	16.011	1.00	32.49
	atom	824	O	ASP	107	27.493	53.699	16.312	1.00	33.38

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	atom	825	N	VAL	108	25.960	52.120	16.866	1.00	30.97
	atom	826	CA	VAL	108	26.165	52.165	18.294	1.00	30.58
	atom	827	CB	VAL	108	25.338	51.132	19.081	1.00	29.70
	atom	828	CG1	VAL	108	25.815	51.023	20.536	1.00	27.03
5	atom	829	CG2	VAL	108	23.851	51.473	19.061	1.00	27.78
	atom	830	C	VAL	108	27.642	51.941	18.611	1.00	31.50
	atom	831	O	VAL	108	28.263	52.779	19.262	1.00	30.29
	atom	832	N	ARG	109	28.181	50.825	18.131	1.00	31.94
	atom	833	CA	ARG	109	29.582	50.479	18.333	1.00	33.32
10	atom	834	CB	ARG	109	29.862	49.087	17.742	1.00	39.04
	atom	835	CG	ARG	109	29.219	47.982	18.577	1.00	44.64
	atom	836	CD	ARG	109	28.861	46.760	17.749	1.00	49.57
	atom	837	NE	ARG	109	29.989	46.182	17.032	1.00	54.31
	atom	838	CZ	ARG	109	31.089	45.684	17.585	1.00	56.41
15	atom	839	NH1	ARG	109	31.224	45.671	18.907	1.00	56.29
	atom	840	NH2	ARG	109	32.068	45.184	16.836	1.00	58.08
	atom	841	C	ARG	109	30.564	51.519	17.806	1.00	32.51
	atom	842	O	ARG	109	31.650	51.652	18.389	1.00	30.97
	atom	843	N	ASN	110	30.217	52.307	16.797	1.00	32.28
20	atom	844	CA	ASN	110	31.053	53.383	16.292	1.00	33.36
	atom	845	CB	ASN	110	30.933	53.568	14.777	1.00	36.00
	atom	846	CG	ASN	110	31.387	52.346	14.002	1.00	41.32
	atom	847	OD1	ASN	110	30.905	52.089	12.890	1.00	44.02
	atom	848	ND2	ASN	110	32.297	51.576	14.590	1.00	42.16
25	atom	849	C	ASN	110	30.714	54.721	16.949	1.00	32.78
	atom	850	O	ASN	110	31.141	55.771	16.480	1.00	33.29
	atom	851	N	LEU	111	29.895	54.731	17.985	1.00	31.98
	atom	852	CA	LEU	111	29.486	55.939	18.682	1.00	31.49
	atom	853	CB	LEU	111	30.616	56.499	19.517	1.00	28.30
30	atom	854	CG	LEU	111	31.277	55.633	20.583	1.00	27.81
	atom	855	CD1	LEU	111	32.342	56.428	21.349	1.00	26.90
	atom	856	CD2	LEU	111	30.249	55.097	21.548	1.00	29.48
	atom	857	C	LEU	111	28.952	56.968	17.688	1.00	32.46
	atom	858	O	LEU	111	29.360	58.137	17.671	1.00	32.73
35	atom	859	N	SER	112	27.999	56.536	16.856	1.00	32.11
	atom	860	CA	SER	112	27.469	57.497	15.882	1.00	33.29

	atom	861	CB	SER	112	26.766	56.766	14.752	1.00	30.43
	atom	862	OG	SER	112	25.377	56.745	14.951	1.00	32.82
	atom	863	C	SER	112	26.624	58.516	16.627	1.00	33.57
	atom	864	O	SER	112	26.006	58.212	17.649	1.00	35.13
5	atom	865	N	SER	113	26.584	59.755	16.171	1.00	33.55
	atom	866	CA	SER	113	25.812	60.812	16.819	1.00	34.53
	atom	867	CB	SER	113	26.016	62.154	16.102	1.00	31.71
	atom	868	OG	SER	113	25.665	62.012	14.735	1.00	32.40
	atom	869	C	SER	113	24.325	60.475	16.901	1.00	35.07
10	atom	870	O	SER	113	23.638	60.741	17.894	1.00	34.43
	atom	871	N	LYS	114	23.803	59.840	15.857	1.00	35.84
	atom	872	CA	LYS	114	22.414	59.401	15.819	1.00	37.45
	atom	873	CB	LYS	114	22.111	58.804	14.458	1.00	42.53
	atom	874	CG	LYS	114	20.757	58.214	14.202	1.00	48.91
15	atom	875	CD	LYS	114	19.887	59.051	13.279	1.00	54.77
	atom	876	CE	LYS	114	19.557	60.426	13.859	1.00	57.51
	atom	877	NZ	LYS	114	18.483	61.097	13.069	1.00	57.88
	atom	878	C	LYS	114	22.158	58.415	16.958	1.00	36.85
	atom	879	O	LYS	114	21.239	58.646	17.754	1.00	36.41
20	atom	880	N	ALA	115	22.980	57.372	17.103	1.00	36.24
	atom	881	CA	ALA	115	22.775	56.427	18.206	1.00	34.92
	atom	882	CB	ALA	115	23.623	55.165	18.053	1.00	34.23
	atom	883	C	ALA	115	23.054	57.057	19.568	1.00	33.80
	atom	884	O	ALA	115	22.268	56.831	20.489	1.00	32.66
25	atom	885	N	VAL	116	24.109	57.855	19.725	1.00	32.93
	atom	886	CA	VAL	116	24.380	58.425	21.045	1.00	32.73
	atom	887	CB	VAL	116	25.763	59.097	21.123	1.00	32.48
	atom	888	CG1	VAL	116	26.044	59.573	22.542	1.00	33.83
	atom	889	CG2	VAL	116	26.858	58.111	20.723	1.00	31.94
30	atom	890	C	VAL	116	23.282	59.360	21.526	1.00	32.02
	atom	891	O	VAL	116	22.913	59.324	22.710	1.00	32.23
	atom	892	N	ASN	117	22.704	60.184	20.662	1.00	30.87
	atom	893	CA	ASN	117	21.655	61.117	21.060	1.00	29.79
	atom	894	CB	ASN	117	21.376	62.163	19.984	1.00	32.08
35	atom	895	CG	ASN	117	22.516	63.131	19.719	1.00	38.47
	atom	896	OD1	ASN	117	23.570	63.130	20.379	1.00	40.33

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	atom	897	ND2	ASN	117	22.448	64.027	18.721	1.00	37.80
	atom	898	C	ASN	117	20.396	60.335	21.428	1.00	28.77
	atom	899	O	ASN	117	19.751	60.661	22.417	1.00	27.56
	atom	900	N	HIS	118	20.106	59.248	20.706	1.00	27.51
5	atom	901	CA	HIS	118	18.911	58.464	21.004	1.00	27.17
	atom	902	CB	HIS	118	18.561	57.461	19.896	1.00	26.40
	atom	903	CG	HIS	118	17.312	56.722	20.256	1.00	29.35
	atom	904	CD2	HIS	118	16.029	57.160	20.398	1.00	29.90
	atom	905	ND1	HIS	118	17.303	55.378	20.559	1.00	29.23
10	atom	906	CE1	HIS	118	16.076	55.005	20.878	1.00	28.93
	atom	907	NE2	HIS	118	15.282	56.065	20.785	1.00	29.97
	atom	908	C	HIS	118	19.029	57.764	22.350	1.00	26.40
	atom	909	O	HIS	118	18.082	57.793	23.129	1.00	26.23
	atom	910	N	ILE	119	20.176	57.168	22.608	1.00	25.54
15	atom	911	CA	ILE	119	20.453	56.443	23.845	1.00	25.77
	atom	912	CB	ILE	119	21.853	55.791	23.704	1.00	25.09
	atom	913	CG2	ILE	119	22.440	55.411	25.034	1.00	20.78
	atom	914	CG1	ILE	119	21.712	54.604	22.740	1.00	23.62
	atom	915	CD1	ILE	119	23.043	54.114	22.215	1.00	23.78
20	atom	916	C	ILE	119	20.332	57.352	25.049	1.00	25.72
	atom	917	O	ILE	119	19.716	57.004	26.046	1.00	26.34
	atom	918	N	HIS	120	20.871	58.567	24.987	1.00	25.92
	atom	919	CA	HIS	120	20.753	59.587	26.008	1.00	25.03
	atom	920	CB	HIS	120	21.451	60.875	25.568	1.00	19.50
25	atom	921	CG	HIS	120	22.906	60.892	25.880	1.00	21.11
	atom	922	CD2	HIS	120	24.032	60.819	25.126	1.00	20.44
	atom	923	ND1	HIS	120	23.342	60.996	27.190	1.00	23.85
	atom	924	CE1	HIS	120	24.671	61.004	27.218	1.00	22.45
	atom	925	NE2	HIS	120	25.109	60.897	25.973	1.00	20.40
30	atom	926	C	HIS	120	19.293	59.931	26.316	1.00	26.49
	atom	927	O	HIS	120	18.893	59.938	27.493	1.00	26.12
	atom	928	N	SER	121	18.485	60.136	25.277	1.00	25.93
	atom	929	CA	SER	121	17.074	60.444	25.480	1.00	27.56
	atom	930	CB	SER	121	16.369	60.863	24.187	1.00	28.43
35	atom	931	OG	SER	121	15.995	59.717	23.422	1.00	34.04
	atom	932	C	SER	121	16.387	59.245	26.119	1.00	27.33

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	atom	933	O	SER	121	15.519	59.459	26.962	1.00	28.01
	atom	934	N	VAL	122	16.781	58.025	25.788	1.00	27.20
	atom	935	CA	VAL	122	16.169	56.835	26.361	1.00	28.11
	atom	936	CB	VAL	122	16.545	55.526	25.631	1.00	26.41
5	atom	937	CG1	VAL	122	15.885	54.343	26.333	1.00	23.66
	atom	938	CG2	VAL	122	16.108	55.594	24.173	1.00	24.72
	atom	939	C	VAL	122	16.503	56.714	27.842	1.00	29.35
	atom	940	O	VAL	122	15.604	56.450	28.653	1.00	29.90
	atom	941	N	TRP	123	17.762	56.937	28.197	1.00	29.56
10	atom	942	CA	TRP	123	18.183	56.921	29.595	1.00	30.64
	atom	943	CB	TRP	123	19.692	57.187	29.654	1.00	29.90
	atom	944	CG	TRP	123	20.286	57.238	31.026	1.00	28.10
	atom	945	CD2	TRP	123	20.587	56.114	31.865	1.00	26.10
	atom	946	CE2	TRP	123	21.147	56.628	33.053	1.00	27.09
15	atom	947	CE3	TRP	123	20.435	54.731	31.736	1.00	25.33
	atom	948	CD1	TRP	123	20.667	58.368	31.711	1.00	26.54
	atom	949	NE1	TRP	123	21.180	58.004	32.932	1.00	27.87
	atom	950	CZ2	TRP	123	21.553	55.803	34.094	1.00	24.63
	atom	951	CZ3	TRP	123	20.835	53.910	32.781	1.00	23.50
20	atom	952	CH2	TRP	123	21.386	54.450	33.944	1.00	24.32
	atom	953	C	TRP	123	17.470	57.990	30.405	1.00	31.64
	atom	954	O	TRP	123	17.064	57.746	31.540	1.00	32.63
	atom	955	N	LYS	124	17.339	59.214	29.886	1.00	32.83
	atom	956	CA	LYS	124	16.653	60.283	30.620	1.00	33.02
25	atom	957	CB	LYS	124	16.725	61.620	29.898	1.00	34.20
	atom	958	CG	LYS	124	15.818	62.722	30.428	1.00	35.32
	atom	959	CD	LYS	124	16.036	63.975	29.577	1.00	37.39
	atom	960	CE	LYS	124	15.459	65.246	30.148	1.00	41.57
	atom	961	NZ	LYS	124	14.008	65.188	30.536	1.00	44.15
30	atom	962	C	LYS	124	15.206	59.873	30.876	1.00	32.46
	atom	963	O	LYS	124	14.740	60.038	31.995	1.00	32.18
	atom	964	N	ASP	125	14.525	59.292	29.886	1.00	31.76
	atom	965	CA	ASP	125	13.165	58.815	30.037	1.00	30.82
	atom	966	CB	ASP	125	12.652	58.213	28.723	1.00	31.14
35	atom	967	CG	ASP	125	11.245	57.663	28.897	1.00	30.89
	atom	968	OD1	ASP	125	10.335	58.503	28.783	1.00	32.56

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	atom	969	OD2	ASP	125	11.084	56.456	29.173	1.00	30.48
	atom	970	C	ASP	125	13.055	57.768	31.144	1.00	30.92
	atom	971	O	ASP	125	12.098	57.780	31.928	1.00	30.73
	atom	972	N	LEU	126	14.024	56.872	31.223	1.00	30.06
5	atom	973	CA	LEU	126	14.064	55.832	32.236	1.00	31.19
	atom	974	CB	LEU	126	15.275	54.925	32.085	1.00	30.34
	atom	975	CG	LEU	126	15.310	53.700	31.205	1.00	28.80
	atom	976	CD1	LEU	126	16.611	52.958	31.528	1.00	28.14
	atom	977	CD2	LEU	126	14.093	52.811	31.440	1.00	26.25
10	atom	978	C	LEU	126	14.163	56.426	33.639	1.00	32.34
	atom	979	O	LEU	126	13.596	55.858	34.571	1.00	33.01
	atom	980	N	LEU	127	14.913	57.518	33.799	1.00	32.51
	atom	981	CA	LEU	127	15.026	58.138	35.111	1.00	33.15
	atom	982	CB	LEU	127	16.241	59.077	35.179	1.00	29.94
15	atom	983	CG	LEU	127	17.600	58.395	34.970	1.00	29.21
	atom	984	CD1	LEU	127	18.711	59.438	34.927	1.00	27.52
	atom	985	CD2	LEU	127	17.846	57.355	36.053	1.00	27.47
	atom	986	C	LEU	127	13.760	58.907	35.479	1.00	33.47
	atom	987	O	LEU	127	13.318	58.873	36.626	1.00	32.84
20	atom	988	N	GLU	128	13.177	59.612	34.525	1.00	34.41
	atom	989	CA	GLU	128	11.999	60.438	34.746	1.00	35.83
	atom	990	CB	GLU	128	12.004	61.563	33.696	1.00	39.47
	atom	991	CG	GLU	128	13.073	62.598	34.026	1.00	44.87
	atom	992	CD	GLU	128	13.218	63.638	32.945	1.00	49.70
25	atom	993	OE1	GLU	128	12.362	63.700	32.024	1.00	53.87
	atom	994	OE2	GLU	128	14.200	64.413	32.978	1.00	50.76
	atom	995	C	GLU	128	10.653	59.743	34.746	1.00	35.73
	atom	996	O	GLU	128	9.718	60.263	35.356	1.00	35.85
	atom	997	N	ASP	129	10.512	58.602	34.084	1.00	35.27
30	atom	998	CA	ASP	129	9.275	57.827	34.086	1.00	33.25
	atom	999	CB	ASP	129	8.666	57.763	32.695	1.00	33.45
	atom	1000	CG	ASP	129	7.490	56.831	32.516	1.00	32.17
	atom	1001	OD1	ASP	129	7.134	56.081	33.444	1.00	31.38
	atom	1002	OD2	ASP	129	6.877	56.845	31.422	1.00	32.33
35	atom	1003	C	ASP	129	9.638	56.438	34.594	1.00	33.11
	atom	1004	O	ASP	129	10.533	55.782	34.058	1.00	32.38

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5	atom	1005	N	THR	130	8.979	55.986	35.658	1.00	32.93
	atom	1006	CA	THR	130	9.300	54.670	36.209	1.00	33.32
	atom	1007	CB	THR	130	9.856	54.769	37.645	1.00	33.49
	atom	1008	OG1	THR	130	8.803	55.253	38.493	1.00	34.96
	atom	1009	CG2	THR	130	11.045	55.701	37.778	1.00	30.06
	atom	1010	C	THR	130	8.070	53.776	36.203	1.00	34.04
	atom	1011	O	THR	130	8.012	52.793	36.942	1.00	33.63
	atom	1012	N	VAL	131	7.086	54.057	35.336	1.00	34.56
10	atom	1013	CA	VAL	131	5.865	53.280	35.312	1.00	35.87
	atom	1014	CB	VAL	131	4.662	54.046	35.934	1.00	38.04
	atom	1015	CG1	VAL	131	4.868	54.432	37.393	1.00	39.19
	atom	1016	CG2	VAL	131	4.322	55.323	35.165	1.00	37.80
15	atom	1017	C	VAL	131	5.433	52.758	33.949	1.00	35.83
	atom	1018	O	VAL	131	5.009	51.596	33.897	1.00	36.49
	atom	1019	N	THR	132	5.487	53.529	32.884	1.00	35.80
	atom	1020	CA	THR	132	5.023	53.141	31.565	1.00	35.92
	atom	1021	CB	THR	132	5.240	54.305	30.565	1.00	36.71
	atom	1022	OG1	THR	132	4.834	55.539	31.165	1.00	36.50
	atom	1023	CG2	THR	132	4.468	54.082	29.268	1.00	36.00
	atom	1024	C	THR	132	5.737	51.921	31.002	1.00	36.28
20	atom	1025	O	THR	132	6.949	51.929	30.739	1.00	35.29
	atom	1026	N	PRO	133	4.964	50.884	30.733	1.00	36.02
	atom	1027	CD	PRO	133	3.506	50.744	30.971	1.00	36.57
	atom	1028	CA	PRO	133	5.502	49.638	30.193	1.00	35.93
25	atom	1029	CB	PRO	133	4.277	48.741	30.012	1.00	36.78
	atom	1030	CG	PRO	133	3.401	49.228	31.138	1.00	36.77
	atom	1031	C	PRO	133	6.258	49.893	28.911	1.00	34.89
	atom	1032	O	PRO	133	5.771	50.591	28.033	1.00	34.65
30	atom	1033	N	ILE	134	7.505	49.413	28.884	1.00	34.47
	atom	1034	CA	ILE	134	8.332	49.618	27.681	1.00	32.52
	atom	1035	CB	ILE	134	9.799	49.544	28.124	1.00	31.09
	atom	1036	CG2	ILE	134	10.726	49.294	26.936	1.00	31.60
35	atom	1037	CG1	ILE	134	10.199	50.807	28.897	1.00	26.79
	atom	1038	CD1	ILE	134	11.625	50.760	29.431	1.00	25.33
	atom	1039	C	ILE	134	7.920	48.552	26.685	1.00	31.87
	atom	1040	O	ILE	134	7.542	47.439	27.074	1.00	31.37

	atom	1041	N	ASP	135	7.967	48.826	25.408	1.00	32.82
	atom	1042	CA	ASP	135	7.591	47.879	24.364	1.00	32.31
	atom	1043	CB	ASP	135	7.515	48.618	23.007	1.00	32.21
	atom	1044	CG	ASP	135	6.869	47.726	21.967	1.00	34.28
5	atom	1045	OD1	ASP	135	7.181	47.751	20.768	1.00	37.79
	atom	1046	OD2	ASP	135	5.984	46.949	22.366	1.00	35.47
	atom	1047	C	ASP	135	8.612	46.764	24.210	1.00	32.38
	atom	1048	O	ASP	135	9.790	47.008	24.473	1.00	32.37
	atom	1049	N	THR	136	8.192	45.574	23.830	1.00	31.67
10	atom	1050	CA	THR	136	9.080	44.455	23.554	1.00	31.75
	atom	1051	CB	THR	136	9.086	43.379	24.657	1.00	31.21
	atom	1052	OG1	THR	136	7.756	42.876	24.849	1.00	30.66
	atom	1053	CG2	THR	136	9.588	43.890	25.997	1.00	29.18
	atom	1054	C	THR	136	8.656	43.787	22.240	1.00	31.11
15	atom	1055	O	THR	136	7.463	43.842	21.912	1.00	30.39
	atom	1056	N	THR	137	9.581	43.238	21.468	1.00	31.05
	atom	1057	CA	THR	137	9.258	42.499	20.244	1.00	30.25
	atom	1058	CB	THR	137	10.220	42.730	19.079	1.00	27.72
	atom	1059	OG1	THR	137	10.327	44.099	18.701	1.00	26.38
20	atom	1060	CG2	THR	137	9.750	41.986	17.821	1.00	29.69
	atom	1061	C	THR	137	9.263	40.987	20.546	1.00	31.26
	atom	1062	O	THR	137	10.152	40.466	21.232	1.00	30.49
	atom	1063	N	ILE	138	8.267	40.252	20.065	1.00	32.31
	atom	1064	CA	ILE	138	8.215	38.807	20.298	1.00	33.92
25	atom	1065	CB	ILE	138	6.914	38.350	20.971	1.00	33.90
	atom	1066	CG2	ILE	138	5.664	38.798	20.225	1.00	32.67
	atom	1067	CG1	ILE	138	6.935	36.830	21.134	1.00	35.41
	atom	1068	CD1	ILE	138	6.099	36.216	22.224	1.00	34.14
	atom	1069	C	ILE	138	8.524	38.119	18.978	1.00	35.72
30	atom	1070	O	ILE	138	8.053	38.616	17.951	1.00	36.87
	atom	1071	N	MET	139	9.377	37.109	18.955	1.00	36.77
	atom	1072	CA	MET	139	9.761	36.422	17.735	1.00	38.76
	atom	1073	CB	MET	139	11.122	36.821	17.166	1.00	41.09
	atom	1074	CG	MET	139	11.282	38.177	16.535	1.00	44.16
35	atom	1075	SD	MET	139	10.002	38.569	15.325	1.00	46.83
	atom	1076	CE	MET	139	10.869	38.182	13.810	1.00	45.10

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5	atom	1077	C	MET	139	9.901	34.914	17.996	1.00	39.71
	atom	1078	O	MET	139	10.089	34.500	19.144	1.00	38.98
	atom	1079	N	ALA	140	9.870	34.162	16.893	1.00	40.22
	atom	1080	CA	ALA	140	10.069	32.714	17.039	1.00	42.07
	atom	1081	CB	ALA	140	9.086	31.913	16.230	1.00	40.20
10	atom	1082	C	ALA	140	11.523	32.443	16.651	1.00	43.52
	atom	1083	O	ALA	140	11.980	33.029	15.670	1.00	43.47
	atom	1084	N	LYS	141	12.249	31.671	17.442	1.00	45.45
	atom	1085	CA	LYS	141	13.645	31.390	17.086	1.00	48.14
	atom	1086	CB	LYS	141	14.396	30.920	18.315	1.00	51.73
15	atom	1087	CG	LYS	141	15.832	31.397	18.498	1.00	54.11
	atom	1088	CD	LYS	141	16.264	30.915	19.878	1.00	55.56
	atom	1089	CE	LYS	141	17.552	31.516	20.391	1.00	57.47
	atom	1090	NZ	LYS	141	17.499	31.571	21.894	1.00	57.93
	atom	1091	C	LYS	141	13.669	30.319	15.999	1.00	48.57
20	atom	1092	O	LYS	141	12.813	29.433	15.982	1.00	48.20
	atom	1093	N	ASN	142	14.639	30.404	15.101	1.00	49.53
	atom	1094	CA	ASN	142	14.774	29.409	14.040	1.00	50.30
	atom	1095	CB	ASN	142	14.833	30.027	12.653	1.00	49.86
	atom	1096	CG	ASN	142	13.593	30.786	12.234	1.00	49.54
25	atom	1097	OD1	ASN	142	13.742	31.824	11.590	1.00	50.12
	atom	1098	ND2	ASN	142	12.422	30.278	12.592	1.00	47.83
	atom	1099	C	ASN	142	16.060	28.624	14.284	1.00	50.99
	atom	1100	O	ASN	142	17.142	29.155	14.024	1.00	52.12
	atom	1101	N	GLU	143	15.944	27.402	14.792	1.00	51.06
30	atom	1102	CA	GLU	143	17.151	26.614	15.050	1.00	51.24
	atom	1103	CB	GLU	143	17.594	26.700	16.508	1.00	51.89
	atom	1104	CG	GLU	143	16.521	27.067	17.510	1.00	52.83
	atom	1105	CD	GLU	143	17.061	27.579	18.827	1.00	53.67
	atom	1106	OE1	GLU	143	16.301	27.593	19.819	1.00	53.37
35	atom	1107	OE2	GLU	143	18.245	27.966	18.884	1.00	53.92
	atom	1108	C	GLU	143	16.993	25.180	14.566	1.00	50.60
	atom	1109	O	GLU	143	15.902	24.609	14.571	1.00	50.70
	atom	1110	N	VAL	144	18.117	24.628	14.125	1.00	49.54
	atom	1111	CA	VAL	144	18.218	23.286	13.577	1.00	48.44
	atom	1112	CB	VAL	144	19.408	23.237	12.583	1.00	47.66

	atom	1113	CG1	VAL	144	19.576	21.845	11.985	1.00	45.89
	atom	1114	CG2	VAL	144	19.229	24.281	11.493	1.00	45.75
	atom	1115	C	VAL	144	18.429	22.194	14.608	1.00	48.29
	atom	1116	O	VAL	144	19.151	22.346	15.596	1.00	47.36
5	atom	1117	N	PHE	145	17.681	21.099	14.492	1.00	48.67
	atom	1118	CA	PHE	145	17.752	19.933	15.353	1.00	49.51
	atom	1119	CB	PHE	145	16.731	19.960	16.491	1.00	50.47
	atom	1120	CG	PHE	145	16.740	21.178	17.368	1.00	53.11
	atom	1121	CD1	PHE	145	15.922	22.254	17.048	1.00	54.39
10	atom	1122	CD2	PHE	145	17.552	21.276	18.487	1.00	52.47
	atom	1123	CE1	PHE	145	15.919	23.401	17.820	1.00	55.80
	atom	1124	CE2	PHE	145	17.536	22.414	19.268	1.00	53.25
	atom	1125	CZ	PHE	145	16.723	23.482	18.941	1.00	53.85
	atom	1126	C	PHE	145	17.548	18.624	14.569	1.00	50.20
15	atom	1127	O	PHE	145	17.323	18.585	13.358	1.00	48.57
	atom	1128	N	CYS	146	17.649	17.513	15.297	1.00	51.48
	atom	1129	CA	CYS	146	17.412	16.186	14.755	1.00	53.41
	atom	1130	CB	CYS	146	18.586	15.233	14.961	1.00	49.50
	atom	1131	SG	CYS	146	18.209	13.479	14.699	1.00	43.89
20	atom	1132	C	CYS	146	16.149	15.609	15.394	1.00	56.34
	atom	1133	O	CYS	146	15.948	15.730	16.598	1.00	55.75
	atom	1134	N	VAL	147	15.291	15.001	14.593	1.00	60.16
	atom	1135	CA	VAL	147	14.058	14.379	15.081	1.00	65.88
	atom	1136	CB	VAL	147	13.352	13.589	13.969	1.00	64.85
25	atom	1137	CG1	VAL	147	12.067	12.960	14.481	1.00	65.06
	atom	1138	CG2	VAL	147	13.039	14.487	12.778	1.00	63.31
	atom	1139	C	VAL	147	14.394	13.493	16.275	1.00	70.14
	atom	1140	O	VAL	147	15.501	12.937	16.255	1.00	70.11
	atom	1141	N	GLN	148	13.513	13.346	17.280	1.00	75.29
30	atom	1142	CA	GLN	148	13.964	12.611	18.441	1.00	81.43
	atom	1143	CB	GLN	148	14.115	13.614	19.628	1.00	83.52
	atom	1144	CG	GLN	148	15.106	13.089	20.653	1.00	86.12
	atom	1145	CD	GLN	148	15.549	14.033	21.736	1.00	87.68
	atom	1146	OE1	GLN	148	15.392	15.254	21.674	1.00	88.39
35	atom	1147	NE2	GLN	148	16.147	13.481	22.793	1.00	88.48
	atom	1148	C	GLN	148	13.409	11.340	19.052	1.00	85.20

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5	atom	1149	O	GLN	148	12.319	11.185	19.581	1.00	85.67
	atom	1150	N	PRO	149	14.378	10.407	19.175	1.00	88.26
	atom	1151	CD	PRO	149	15.757	10.587	18.620	1.00	89.22
	atom	1152	CA	PRO	149	14.290	9.117	19.817	1.00	90.26
	atom	1153	CB	PRO	149	15.661	8.472	19.718	1.00	90.27
	atom	1154	CG	PRO	149	16.390	9.238	18.679	1.00	89.82
	atom	1155	C	PRO	149	13.922	9.287	21.290	1.00	92.03
	atom	1156	O	PRO	149	14.706	9.563	22.184	1.00	92.21
10	atom	1157	N	GLU	150	12.624	9.089	21.434	1.00	93.97
	atom	1158	CA	GLU	150	11.908	9.290	22.678	1.00	95.87
	atom	1159	CB	GLU	150	12.607	10.394	23.458	1.00	98.31
	atom	1160	CG	GLU	150	12.283	10.605	24.909	1.00	100.68
15	atom	1161	CD	GLU	150	13.046	11.784	25.491	1.00	101.94
	atom	1162	OE1	GLU	150	14.100	12.163	24.936	1.00	103.08
	atom	1163	OE2	GLU	150	12.586	12.335	26.512	1.00	102.49
	atom	1164	C	GLU	150	10.551	9.839	22.214	1.00	96.14
20	atom	1165	O	GLU	150	10.269	9.938	21.018	1.00	96.34
	atom	1166	N	LYS	151	9.798	10.273	23.210	1.00	96.11
	atom	1167	CA	LYS	151	8.518	10.915	22.920	1.00	95.79
	atom	1168	CB	LYS	151	7.837	11.311	24.227	1.00	97.99
25	atom	1169	CG	LYS	151	7.587	10.140	25.172	1.00	100.01
	atom	1170	CD	LYS	151	7.001	10.581	26.502	1.00	101.48
	atom	1171	CE	LYS	151	6.709	9.420	27.440	1.00	102.17
	atom	1172	NZ	LYS	151	6.204	9.887	28.765	1.00	102.71
30	atom	1173	C	LYS	151	8.818	12.102	22.007	1.00	94.58
	atom	1174	O	LYS	151	9.853	12.756	22.141	1.00	94.58
	atom	1175	N	GLY	152	7.952	12.315	21.024	1.00	93.28
	atom	1176	CA	GLY	152	8.065	13.398	20.078	1.00	90.94
35	atom	1177	C	GLY	152	8.896	13.133	18.835	1.00	89.22
	atom	1178	O	GLY	152	9.680	12.191	18.725	1.00	89.83
	atom	1179	N	GLY	153	8.705	14.031	17.874	1.00	86.68
	atom	1180	CA	GLY	153	9.424	14.027	16.603	1.00	82.74
40	atom	1181	C	GLY	153	9.381	15.475	16.105	1.00	80.15
	atom	1182	O	GLY	153	8.766	15.739	15.072	1.00	80.63
	atom	1183	N	ARG	154	9.948	16.394	16.873	1.00	76.37
	atom	1184	CA	ARG	154	10.009	17.805	16.578	1.00	71.79

	atom	1185	CB	ARG	154	9.312	18.235	15.288	1.00	72.12
	atom	1186	CG	ARG	154	10.132	18.196	14.015	1.00	72.47
	atom	1187	CD	ARG	154	9.313	17.691	12.848	1.00	72.65
	atom	1188	NE	ARG	154	10.077	17.491	11.629	1.00	72.61
5	atom	1189	CZ	ARG	154	10.332	18.435	10.730	1.00	72.95
	atom	1190	NH1	ARG	154	9.897	19.679	10.885	1.00	72.44
	atom	1191	NH2	ARG	154	11.033	18.166	9.635	1.00	73.93
	atom	1192	C	ARG	154	9.446	18.681	17.702	1.00	68.33
	atom	1193	O	ARG	154	8.271	18.596	18.046	1.00	68.32
10	atom	1194	N	LYS	155	10.310	19.549	18.221	1.00	64.59
	atom	1195	CA	LYS	155	9.865	20.505	19.240	1.00	60.19
	atom	1196	CB	LYS	155	10.800	20.618	20.424	1.00	60.37
	atom	1197	CG	LYS	155	12.220	21.008	20.070	1.00	60.21
	atom	1198	CD	LYS	155	13.191	20.328	21.039	1.00	61.19
15	atom	1199	CE	LYS	155	14.606	20.465	20.485	1.00	62.47
	atom	1200	NZ	LYS	155	14.555	20.269	19.003	1.00	63.83
	atom	1201	C	LYS	155	9.660	21.848	18.536	1.00	56.40
	atom	1202	O	LYS	155	10.225	22.133	17.480	1.00	56.09
	atom	1203	N	PRO	156	8.786	22.662	19.103	1.00	53.47
20	atom	1204	CD	PRO	156	8.018	22.421	20.337	1.00	52.46
	atom	1205	CA	PRO	156	8.450	23.938	18.504	1.00	52.10
	atom	1206	CB	PRO	156	7.105	24.296	19.106	1.00	51.66
	atom	1207	CG	PRO	156	6.988	23.512	20.352	1.00	52.02
	atom	1208	C	PRO	156	9.481	25.033	18.726	1.00	50.59
25	atom	1209	O	PRO	156	10.326	24.988	19.614	1.00	49.69
	atom	1210	N	ALA	157	9.395	26.013	17.819	1.00	48.97
	atom	1211	CA	ALA	157	10.264	27.173	17.889	1.00	47.02
	atom	1212	CB	ALA	157	9.804	28.257	16.918	1.00	44.00
	atom	1213	C	ALA	157	10.247	27.744	19.307	1.00	45.89
30	atom	1214	O	ALA	157	9.200	27.794	19.955	1.00	44.79
	atom	1215	N	ARG	158	11.423	28.161	19.745	1.00	45.07
	atom	1216	CA	ARG	158	11.535	28.855	21.025	1.00	45.21
	atom	1217	CB	ARG	158	12.968	28.810	21.537	1.00	51.46
	atom	1218	CG	ARG	158	13.385	29.911	22.500	1.00	58.97
35	atom	1219	CD	ARG	158	12.526	29.950	23.748	1.00	64.01
	atom	1220	NE	ARG	158	12.826	31.007	24.715	1.00	67.26

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5	atom	1221	CZ	ARG	158	11.928	31.343	25.655	1.00	71.12
	atom	1222	NH1	ARG	158	10.739	30.728	25.663	1.00	72.84
	atom	1223	NH2	ARG	158	12.170	32.295	26.554	1.00	70.70
	atom	1224	C	ARG	158	11.057	30.286	20.764	1.00	43.32
	atom	1225	O	ARG	158	11.200	30.832	19.658	1.00	44.12
	atom	1226	N	LEU	159	10.445	30.916	21.737	1.00	41.55
	atom	1227	CA	LEU	159	9.974	32.291	21.595	1.00	40.40
	atom	1228	CB	LEU	159	8.595	32.429	22.256	1.00	36.54
10	atom	1229	CG	LEU	159	7.489	31.561	21.657	1.00	35.48
	atom	1230	CD1	LEU	159	6.182	31.777	22.401	1.00	34.89
	atom	1231	CD2	LEU	159	7.323	31.849	20.164	1.00	33.42
	atom	1232	C	LEU	159	10.944	33.251	22.263	1.00	39.74
15	atom	1233	O	LEU	159	11.415	32.940	23.358	1.00	40.34
	atom	1234	N	ILE	160	11.292	34.373	21.643	1.00	39.04
	atom	1235	CA	ILE	160	12.170	35.355	22.261	1.00	36.86
	atom	1236	CB	ILE	160	13.505	35.529	21.530	1.00	39.67
	atom	1237	CG2	ILE	160	14.322	34.244	21.530	1.00	40.57
	atom	1238	CG1	ILE	160	13.282	36.013	20.099	1.00	40.36
20	atom	1239	CD1	ILE	160	14.542	36.535	19.428	1.00	39.21
	atom	1240	C	ILE	160	11.483	36.716	22.365	1.00	35.47
	atom	1241	O	ILE	160	10.699	37.106	21.493	1.00	33.81
	atom	1242	N	VAL	161	11.696	37.401	23.505	1.00	34.23
25	atom	1243	CA	VAL	161	11.102	38.720	23.688	1.00	33.16
	atom	1244	CB	VAL	161	9.836	38.801	24.546	1.00	32.23
	atom	1245	CG1	VAL	161	9.191	37.458	24.831	1.00	29.69
	atom	1246	CG2	VAL	161	9.960	39.632	25.802	1.00	32.34
	atom	1247	C	VAL	161	12.187	39.706	24.110	1.00	32.49
	atom	1248	O	VAL	161	12.910	39.410	25.068	1.00	32.88
30	atom	1249	N	PHE	162	12.314	40.823	23.405	1.00	30.58
	atom	1250	CA	PHE	162	13.368	41.769	23.719	1.00	31.04
	atom	1251	CB	PHE	162	14.579	41.504	22.791	1.00	26.66
	atom	1252	CG	PHE	162	14.245	41.472	21.320	1.00	23.68
35	atom	1253	CD1	PHE	162	14.367	42.580	20.517	1.00	24.34
	atom	1254	CD2	PHE	162	13.794	40.302	20.731	1.00	23.64
	atom	1255	CE1	PHE	162	14.056	42.541	19.164	1.00	25.52
	atom	1256	CE2	PHE	162	13.465	40.247	19.391	1.00	25.47

5	atom	1257	CZ	PHE	162	13.603	41.365	18.587	1.00	24.73
	atom	1258	C	PHE	162	12.994	43.240	23.544	1.00	31.53
	atom	1259	O	PHE	162	12.274	43.575	22.601	1.00	30.99
	atom	1260	N	PRO	163	13.588	44.072	24.381	1.00	31.60
	atom	1261	CD	PRO	163	14.481	43.695	25.497	1.00	32.29
	atom	1262	CA	PRO	163	13.428	45.519	24.275	1.00	32.66
	atom	1263	CB	PRO	163	14.046	46.038	25.568	1.00	32.36
	atom	1264	CG	PRO	163	15.033	45.004	25.984	1.00	31.84
10	atom	1265	C	PRO	163	14.156	45.971	23.014	1.00	32.16
	atom	1266	O	PRO	163	14.844	45.203	22.325	1.00	33.48
	atom	1267	N	ASP	164	14.025	47.229	22.664	1.00	31.19
	atom	1268	CA	ASP	164	14.670	47.819	21.490	1.00	30.65
	atom	1269	CB	ASP	164	13.891	49.090	21.128	1.00	30.44
	atom	1270	CG	ASP	164	14.457	49.871	19.959	1.00	32.84
	atom	1271	OD1	ASP	164	15.167	50.886	20.174	1.00	31.69
	atom	1272	OD2	ASP	164	14.225	49.527	18.770	1.00	31.65
15	atom	1273	C	ASP	164	16.135	48.166	21.770	1.00	29.41
	atom	1274	O	ASP	164	16.509	48.413	22.917	1.00	27.20
	atom	1275	N	LEU	165	16.954	48.236	20.729	1.00	28.63
	atom	1276	CA	LEU	165	18.369	48.527	20.841	1.00	28.79
	atom	1277	CB	LEU	165	18.934	48.938	19.468	1.00	28.92
	atom	1278	CG	LEU	165	20.333	48.448	19.106	1.00	30.49
	atom	1279	CD1	LEU	165	20.931	49.284	17.985	1.00	27.44
	atom	1280	CD2	LEU	165	21.276	48.379	20.294	1.00	29.85
25	atom	1281	C	LEU	165	18.705	49.616	21.858	1.00	28.59
	atom	1282	O	LEU	165	19.543	49.397	22.735	1.00	28.47
	atom	1283	N	GLY	166	18.099	50.796	21.765	1.00	27.36
	atom	1284	CA	GLY	166	18.369	51.919	22.621	1.00	26.57
	atom	1285	C	GLY	166	18.282	51.536	24.089	1.00	27.07
	atom	1286	O	GLY	166	19.186	51.846	24.871	1.00	27.43
	atom	1287	N	VAL	167	17.191	50.882	24.458	1.00	26.12
	atom	1288	CA	VAL	167	16.991	50.372	25.800	1.00	25.77
30	atom	1289	CB	VAL	167	15.586	49.747	25.923	1.00	23.29
	atom	1290	CG1	VAL	167	15.381	49.080	27.273	1.00	18.96
	atom	1291	CG2	VAL	167	14.511	50.795	25.658	1.00	21.24
	atom	1292	C	VAL	167	18.025	49.311	26.182	1.00	26.68

	atom	1293	O	VAL	167	18.403	49.248	27.360	1.00	26.72
	atom	1294	N	ARG	168	18.489	48.469	25.269	1.00	26.68
	atom	1295	CA	ARG	168	19.459	47.418	25.582	1.00	27.27
	atom	1296	CB	ARG	168	19.694	46.417	24.448	1.00	24.53
5	atom	1297	CG	ARG	168	18.436	45.773	23.878	1.00	24.37
	atom	1298	CD	ARG	168	18.678	44.377	23.265	1.00	22.09
	atom	1299	NE	ARG	168	19.321	44.543	21.942	1.00	23.63
	atom	1300	CZ	ARG	168	18.685	44.833	20.820	1.00	23.07
	atom	1301	NH1	ARG	168	17.356	44.984	20.793	1.00	24.10
10	atom	1302	NH2	ARG	168	19.351	44.959	19.682	1.00	23.94
	atom	1303	C	ARG	168	20.785	48.051	25.991	1.00	27.36
	atom	1304	O	ARG	168	21.415	47.555	26.918	1.00	28.72
	atom	1305	N	VAL	169	21.190	49.164	25.384	1.00	27.03
	atom	1306	CA	VAL	169	22.425	49.838	25.775	1.00	25.89
15	atom	1307	CB	VAL	169	22.819	50.911	24.752	1.00	26.20
	atom	1308	CG1	VAL	169	24.169	51.525	25.122	1.00	24.47
	atom	1309	CG2	VAL	169	22.843	50.365	23.331	1.00	23.69
	atom	1310	C	VAL	169	22.258	50.483	27.153	1.00	26.25
	atom	1311	O	VAL	169	23.159	50.519	27.990	1.00	25.80
20	atom	1312	N	CYS	170	21.066	51.008	27.432	1.00	25.63
	atom	1313	CA	CYS	170	20.711	51.618	28.706	1.00	25.33
	atom	1314	CB	CYS	170	19.366	52.337	28.638	1.00	23.90
	atom	1315	SG	CYS	170	19.372	53.920	27.742	1.00	21.71
	atom	1316	C	CYS	170	20.744	50.562	29.811	1.00	25.08
25	atom	1317	O	CYS	170	21.176	50.841	30.931	1.00	25.55
	atom	1318	N	GLU	171	20.373	49.325	29.470	1.00	23.47
	atom	1319	CA	GLU	171	20.443	48.220	30.404	1.00	23.16
	atom	1320	CB	GLU	171	19.915	46.927	29.791	1.00	25.03
	atom	1321	CG	GLU	171	18.383	46.881	29.769	1.00	26.53
30	atom	1322	CD	GLU	171	17.964	45.479	29.333	1.00	28.34
	atom	1323	OE1	GLU	171	17.861	44.601	30.227	1.00	26.99
	atom	1324	OE2	GLU	171	17.786	45.359	28.099	1.00	26.26
	atom	1325	C	GLU	171	21.906	48.035	30.798	1.00	22.69
	atom	1326	O	GLU	171	22.213	47.945	31.980	1.00	22.79
35	atom	1327	N	LYS	172	22.822	48.079	29.832	1.00	22.81
	atom	1328	CA	LYS	172	24.239	47.997	30.175	1.00	23.43

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5	atom	1329	CB	LYS	172	25.134	47.915	28.931	1.00	21.94
	atom	1330	CG	LYS	172	24.938	46.608	28.184	1.00	22.99
	atom	1331	CD	LYS	172	25.926	46.493	27.035	1.00	24.09
	atom	1332	CE	LYS	172	25.965	45.052	26.533	1.00	24.99
	atom	1333	NZ	LYS	172	24.617	44.633	26.029	1.00	23.60
10	atom	1334	C	LYS	172	24.687	49.160	31.060	1.00	23.07
	atom	1335	O	LYS	172	25.380	48.926	32.067	1.00	23.65
	atom	1336	N	MET	173	24.264	50.385	30.784	1.00	22.15
	atom	1337	CA	MET	173	24.716	51.497	31.615	1.00	24.27
	atom	1338	CB	MET	173	24.113	52.855	31.234	1.00	22.37
15	atom	1339	CG	MET	173	24.435	53.191	29.782	1.00	23.33
	atom	1340	SD	MET	173	23.491	54.657	29.266	1.00	22.78
	atom	1341	CE	MET	173	22.705	54.026	27.846	1.00	25.17
	atom	1342	C	MET	173	24.436	51.264	33.099	1.00	23.38
	atom	1343	O	MET	173	25.306	51.526	33.920	1.00	22.63
20	atom	1344	N	ALA	174	23.221	50.823	33.370	1.00	24.08
	atom	1345	CA	ALA	174	22.776	50.595	34.734	1.00	24.36
	atom	1346	CB	ALA	174	21.223	50.495	34.710	1.00	23.43
	atom	1347	C	ALA	174	23.248	49.308	35.376	1.00	23.71
	atom	1348	O	ALA	174	23.348	49.307	36.603	1.00	23.27
25	atom	1349	N	LEU	175	23.351	48.214	34.610	1.00	23.24
	atom	1350	CA	LEU	175	23.558	46.910	35.243	1.00	23.43
	atom	1351	CB	LEU	175	22.235	46.101	35.090	1.00	19.85
	atom	1352	CG	LEU	175	21.082	46.571	35.997	1.00	21.30
	atom	1353	CD1	LEU	175	19.722	46.446	35.303	1.00	20.92
30	atom	1354	CD2	LEU	175	21.062	45.802	37.315	1.00	17.62
	atom	1355	C	LEU	175	24.706	46.086	34.712	1.00	23.71
	atom	1356	O	LEU	175	24.918	44.986	35.242	1.00	22.87
	atom	1357	N	TYR	176	25.428	46.587	33.699	1.00	23.85
	atom	1358	CA	TYR	176	26.537	45.793	33.196	1.00	24.76
35	atom	1359	CB	TYR	176	27.396	46.517	32.164	1.00	24.24
	atom	1360	CG	TYR	176	28.469	45.609	31.604	1.00	23.70
	atom	1361	CD1	TYR	176	28.192	44.765	30.542	1.00	25.39
	atom	1362	CE1	TYR	176	29.151	43.921	30.004	1.00	24.59
	atom	1363	CD2	TYR	176	29.731	45.570	32.141	1.00	24.42
	atom	1364	CE2	TYR	176	30.716	44.743	31.627	1.00	25.18

	atom	1365	CZ	TYR	176	30.420	43.930	30.553	1.00	25.15
	atom	1366	OH	TYR	176	31.394	43.109	30.035	1.00	23.81
	atom	1367	C	TYR	176	27.467	45.373	34.333	1.00	25.17
	atom	1368	O	TYR	176	27.849	44.222	34.486	1.00	26.16
5	atom	1369	N	ASP	177	27.872	46.342	35.124	1.00	26.14
	atom	1370	CA	ASP	177	28.813	46.177	36.210	1.00	28.16
	atom	1371	CB	ASP	177	29.289	47.582	36.622	1.00	26.85
	atom	1372	CG	ASP	177	30.519	47.463	37.503	1.00	29.03
	atom	1373	OD1	ASP	177	31.468	46.776	37.086	1.00	27.87
10	atom	1374	OD2	ASP	177	30.497	48.066	38.592	1.00	30.70
	atom	1375	C	ASP	177	28.267	45.371	37.374	1.00	28.55
	atom	1376	O	ASP	177	28.995	44.663	38.067	1.00	29.26
	atom	1377	N	VAL	178	26.965	45.383	37.575	1.00	29.44
	atom	1378	CA	VAL	178	26.290	44.615	38.615	1.00	30.24
15	atom	1379	CB	VAL	178	24.848	45.147	38.771	1.00	28.07
	atom	1380	CG1	VAL	178	23.930	44.151	39.465	1.00	25.12
	atom	1381	CG2	VAL	178	24.946	46.473	39.515	1.00	26.85
	atom	1382	C	VAL	178	26.220	43.147	38.222	1.00	31.80
	atom	1383	O	VAL	178	26.691	42.196	38.838	1.00	30.97
20	atom	1384	N	VAL	179	25.654	42.968	37.035	1.00	32.63
	atom	1385	CA	VAL	179	25.458	41.663	36.402	1.00	34.98
	atom	1386	CB	VAL	179	24.669	41.979	35.115	1.00	33.16
	atom	1387	CG1	VAL	179	25.225	41.365	33.861	1.00	27.98
	atom	1388	CG2	VAL	179	23.197	41.679	35.380	1.00	30.80
25	atom	1389	C	VAL	179	26.784	40.958	36.239	1.00	37.79
	atom	1390	O	VAL	179	26.905	39.726	36.240	1.00	38.71
	atom	1391	N	SER	180	27.853	41.728	36.082	1.00	39.59
	atom	1392	CA	SER	180	29.209	41.301	35.932	1.00	42.67
	atom	1393	CB	SER	180	30.041	42.560	35.605	1.00	44.28
30	atom	1394	OG	SER	180	31.440	42.346	35.663	1.00	43.59
	atom	1395	C	SER	180	29.899	40.683	37.136	1.00	43.76
	atom	1396	O	SER	180	30.746	39.807	36.923	1.00	45.63
	atom	1397	N	THR	181	29.714	41.212	38.337	1.00	43.21
	atom	1398	CA	THR	181	30.421	40.760	39.520	1.00	42.53
35	atom	1399	CB	THR	181	31.307	41.936	39.999	1.00	43.48
	atom	1400	OG1	THR	181	30.405	42.959	40.439	1.00	46.39

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	atom	1401	CG2	THR	181	32.147	42.584	38.913	1.00	44.93
	atom	1402	C	THR	181	29.603	40.332	40.727	1.00	41.82
	atom	1403	O	THR	181	30.134	39.633	41.595	1.00	42.60
	atom	1404	N	LEU	182	28.324	40.646	40.873	1.00	40.33
5	atom	1405	CA	LEU	182	27.491	40.267	42.004	1.00	38.76
	atom	1406	CB	LEU	182	26.196	41.084	41.944	1.00	39.19
	atom	1407	CG	LEU	182	25.008	40.615	42.779	1.00	40.58
	atom	1408	CD1	LEU	182	25.205	40.932	44.251	1.00	39.89
	atom	1409	CD2	LEU	182	23.724	41.261	42.272	1.00	41.35
10	atom	1410	C	LEU	182	27.150	38.789	42.152	1.00	37.89
	atom	1411	O	LEU	182	27.169	38.239	43.266	1.00	37.41
	atom	1412	N	PRO	183	26.798	38.101	41.069	1.00	35.88
	atom	1413	CD	PRO	183	26.692	38.654	39.705	1.00	35.44
	atom	1414	CA	PRO	183	26.502	36.684	41.125	1.00	35.52
15	atom	1415	CB	PRO	183	26.340	36.276	39.671	1.00	35.52
	atom	1416	CG	PRO	183	26.228	37.513	38.865	1.00	35.30
	atom	1417	C	PRO	183	27.614	35.898	41.803	1.00	35.13
	atom	1418	O	PRO	183	27.413	35.154	42.756	1.00	34.50
	atom	1419	N	GLN	184	28.857	36.073	41.362	1.00	35.21
20	atom	1420	CA	GLN	184	30.005	35.361	41.913	1.00	34.77
	atom	1421	CB	GLN	184	31.298	35.829	41.241	1.00	38.60
	atom	1422	CG	GLN	184	32.234	34.739	40.814	1.00	43.86
	atom	1423	CD	GLN	184	33.313	34.371	41.802	1.00	48.44
	atom	1424	OE1	GLN	184	34.465	34.294	41.352	1.00	48.65
25	atom	1425	NE2	GLN	184	33.029	34.140	43.081	1.00	48.92
	atom	1426	C	GLN	184	30.131	35.584	43.414	1.00	32.86
	atom	1427	O	GLN	184	30.439	34.650	44.158	1.00	32.66
	atom	1428	N	VAL	185	29.934	36.819	43.853	1.00	30.61
	atom	1429	CA	VAL	185	30.054	37.125	45.278	1.00	29.54
30	atom	1430	CB	VAL	185	29.968	38.647	45.532	1.00	27.09
	atom	1431	CG1	VAL	185	29.927	38.945	47.011	1.00	25.22
	atom	1432	CG2	VAL	185	31.117	39.385	44.853	1.00	22.47
	atom	1433	C	VAL	185	28.972	36.443	46.099	1.00	29.28
	atom	1434	O	VAL	185	29.198	36.001	47.232	1.00	29.26
35	atom	1435	N	VAL	186	27.750	36.446	45.593	1.00	29.09
	atom	1436	CA	VAL	186	26.627	35.899	46.338	1.00	30.15

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5	atom	1437	CB	VAL	186	25.292	36.408	45.764	1.00	29.67
	atom	1438	CG1	VAL	186	24.087	35.743	46.417	1.00	30.18
	atom	1439	CG2	VAL	186	25.172	37.927	45.896	1.00	29.60
	atom	1440	C	VAL	186	26.653	34.372	46.307	1.00	31.70
	atom	1441	O	VAL	186	26.306	33.702	47.289	1.00	31.41
	atom	1442	N	MET	187	27.047	33.820	45.164	1.00	31.70
	atom	1443	CA	MET	187	26.987	32.392	44.940	1.00	33.11
	atom	1444	CB	MET	187	26.341	32.132	43.553	1.00	34.28
10	atom	1445	CG	MET	187	24.885	32.605	43.541	1.00	34.57
	atom	1446	SD	MET	187	24.070	32.396	41.953	1.00	33.22
	atom	1447	CE	MET	187	24.772	33.723	41.010	1.00	34.90
	atom	1448	C	MET	187	28.294	31.651	45.076	1.00	33.52
	atom	1449	O	MET	187	28.264	30.416	45.172	1.00	33.72
	atom	1450	N	GLY	188	29.417	32.355	45.049	1.00	33.25
	atom	1451	CA	GLY	188	30.710	31.704	45.180	1.00	33.01
	atom	1452	C	GLY	188	30.957	30.673	44.100	1.00	33.89
15	atom	1453	O	GLY	188	30.602	30.842	42.925	1.00	34.45
	atom	1454	N	SER	189	31.559	29.535	44.451	1.00	33.10
	atom	1455	CA	SER	189	31.889	28.486	43.506	1.00	33.32
	atom	1456	CB	SER	189	32.643	27.322	44.184	1.00	32.00
	atom	1457	OG	SER	189	31.794	26.657	45.098	1.00	31.26
	atom	1458	C	SER	189	30.715	27.915	42.730	1.00	32.57
	atom	1459	O	SER	189	30.999	27.292	41.701	1.00	32.83
	atom	1460	N	SER	190	29.471	28.099	43.135	1.00	31.96
25	atom	1461	CA	SER	190	28.314	27.601	42.415	1.00	31.58
	atom	1462	CB	SER	190	27.036	27.599	43.273	1.00	30.10
	atom	1463	OG	SER	190	27.233	26.799	44.423	1.00	33.24
	atom	1464	C	SER	190	28.013	28.441	41.179	1.00	31.49
	atom	1465	O	SER	190	27.230	27.959	40.356	1.00	31.89
	atom	1466	N	TYR	191	28.547	29.656	41.092	1.00	31.65
	atom	1467	CA	TYR	191	28.296	30.498	39.918	1.00	33.01
	atom	1468	CB	TYR	191	28.775	31.924	40.174	1.00	33.45
30	atom	1469	CG	TYR	191	28.517	32.860	39.005	1.00	34.87
	atom	1470	CD1	TYR	191	27.229	33.068	38.514	1.00	34.40
	atom	1471	CE1	TYR	191	27.011	33.937	37.464	1.00	34.42
	atom	1472	CD2	TYR	191	29.568	33.552	38.421	1.00	35.33

	atom	1473	CE2	TYR	191	29.349	34.413	37.362	1.00	35.36
	atom	1474	CZ	TYR	191	28.071	34.603	36.897	1.00	35.64
	atom	1475	OH	TYR	191	27.879	35.480	35.849	1.00	38.03
	atom	1476	C	TYR	191	29.015	29.936	38.702	1.00	33.04
5	atom	1477	O	TYR	191	30.230	30.109	38.583	1.00	34.05
	atom	1478	N	GLY	192	28.317	29.215	37.849	1.00	33.71
	atom	1479	CA	GLY	192	28.895	28.522	36.720	1.00	35.22
	atom	1480	C	GLY	192	29.687	29.317	35.712	1.00	36.79
	atom	1481	O	GLY	192	30.744	28.854	35.272	1.00	37.39
10	atom	1482	N	PHE	193	29.233	30.509	35.314	1.00	37.16
	atom	1483	CA	PHE	193	29.910	31.329	34.337	1.00	37.88
	atom	1484	CB	PHE	193	29.023	32.490	33.857	1.00	40.40
	atom	1485	CG	PHE	193	27.755	32.006	33.203	1.00	43.20
	atom	1486	CD1	PHE	193	26.567	32.040	33.923	1.00	44.55
15	atom	1487	CD2	PHE	193	27.741	31.552	31.898	1.00	42.25
	atom	1488	CE1	PHE	193	25.374	31.618	33.361	1.00	43.85
	atom	1489	CE2	PHE	193	26.562	31.110	31.336	1.00	44.52
	atom	1490	CZ	PHE	193	25.382	31.142	32.068	1.00	45.39
	atom	1491	C	PHE	193	31.270	31.876	34.730	1.00	37.20
20	atom	1492	O	PHE	193	31.959	32.352	33.824	1.00	36.82
	atom	1493	N	GLN	194	31.745	31.791	35.960	1.00	37.24
	atom	1494	CA	GLN	194	33.075	32.276	36.299	1.00	37.75
	atom	1495	CB	GLN	194	33.277	32.372	37.821	1.00	37.47
	atom	1496	CG	GLN	194	33.301	31.029	38.525	1.00	37.92
25	atom	1497	CD	GLN	194	33.166	31.129	40.023	1.00	37.87
	atom	1498	OE1	GLN	194	32.102	30.858	40.591	1.00	38.09
	atom	1499	NE2	GLN	194	34.251	31.522	40.682	1.00	38.15
	atom	1500	C	GLN	194	34.162	31.365	35.732	1.00	38.86
	atom	1501	O	GLN	194	35.292	31.810	35.545	1.00	38.81
30	atom	1502	N	TYR	195	33.847	30.104	35.466	1.00	38.48
	atom	1503	CA	TYR	195	34.793	29.130	35.012	1.00	38.71
	atom	1504	CB	TYR	195	34.303	27.708	35.416	1.00	35.34
	atom	1505	CG	TYR	195	34.044	27.521	36.885	1.00	33.34
	atom	1506	CD1	TYR	195	32.775	27.222	37.374	1.00	30.48
35	atom	1507	CE1	TYR	195	32.554	27.049	38.717	1.00	29.26
	atom	1508	CD2	TYR	195	35.081	27.627	37.807	1.00	32.84

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	atom	1509	CE2	TYR	195	34.863	27.445	39.159	1.00	31.95
	atom	1510	CZ	TYR	195	33.590	27.166	39.610	1.00	31.67
	atom	1511	OH	TYR	195	33.406	27.020	40.976	1.00	32.50
	atom	1512	C	TYR	195	35.106	28.998	33.530	1.00	39.50
5	atom	1513	O	TYR	195	34.228	28.882	32.682	1.00	40.78
	atom	1514	N	SER	196	36.390	28.794	33.235	1.00	40.30
	atom	1515	CA	SER	196	36.785	28.421	31.878	1.00	42.95
	atom	1516	CB	SER	196	38.289	28.496	31.722	1.00	43.28
	atom	1517	OG	SER	196	38.930	27.683	32.697	1.00	42.81
10	atom	1518	C	SER	196	36.310	26.970	31.745	1.00	44.87
	atom	1519	O	SER	196	35.903	26.326	32.721	1.00	44.98
	atom	1520	N	PRO	197	36.398	26.395	30.562	1.00	46.04
	atom	1521	CD	PRO	197	36.875	27.042	29.313	1.00	46.52
	atom	1522	CA	PRO	197	35.950	25.027	30.348	1.00	46.02
15	atom	1523	CB	PRO	197	36.109	24.806	28.855	1.00	46.57
	atom	1524	CG	PRO	197	37.048	25.861	28.384	1.00	46.56
	atom	1525	C	PRO	197	36.776	24.068	31.189	1.00	46.02
	atom	1526	O	PRO	197	36.233	23.187	31.857	1.00	45.86
	atom	1527	N	GLY	198	38.098	24.259	31.185	1.00	44.59
20	atom	1528	CA	GLY	198	39.004	23.434	31.967	1.00	42.99
	atom	1529	C	GLY	198	38.737	23.541	33.462	1.00	42.19
	atom	1530	O	GLY	198	38.824	22.572	34.206	1.00	42.13
	atom	1531	N	GLN	199	38.394	24.738	33.938	1.00	41.97
	atom	1532	CA	GLN	199	38.064	25.006	35.327	1.00	40.16
25	atom	1533	CB	GLN	199	38.038	26.508	35.582	1.00	39.85
	atom	1534	CG	GLN	199	39.372	27.225	35.578	1.00	39.97
	atom	1535	CD	GLN	199	39.171	28.737	35.544	1.00	41.46
	atom	1536	OE1	GLN	199	38.239	29.292	34.960	1.00	41.70
	atom	1537	NE2	GLN	199	40.058	29.463	36.209	1.00	39.98
30	atom	1538	C	GLN	199	36.714	24.399	35.738	1.00	38.84
	atom	1539	O	GLN	199	36.569	24.033	36.902	1.00	38.24
	atom	1540	N	ARG	200	35.756	24.288	34.827	1.00	36.96
	atom	1541	CA	ARG	200	34.477	23.669	35.129	1.00	35.75
	atom	1542	CB	ARG	200	33.457	23.895	34.026	1.00	35.60
35	atom	1543	CG	ARG	200	32.217	23.019	34.106	1.00	38.15
	atom	1544	CD	ARG	200	31.285	23.372	32.955	1.00	39.79

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5	atom	1545	NE	ARG	200	29.891	23.069	33.221	1.00	40.42
	atom	1546	CZ	ARG	200	29.065	23.889	33.862	1.00	42.22
	atom	1547	NH1	ARG	200	29.452	25.066	34.337	1.00	42.11
	atom	1548	NH2	ARG	200	27.804	23.525	34.047	1.00	42.72
	atom	1549	C	ARG	200	34.707	22.173	35.343	1.00	35.09
	atom	1550	O	ARG	200	34.343	21.624	36.389	1.00	34.41
	atom	1551	N	VAL	201	35.397	21.545	34.387	1.00	34.15
	atom	1552	CA	VAL	201	35.718	20.116	34.499	1.00	33.25
10	atom	1553	CB	VAL	201	36.665	19.710	33.353	1.00	33.33
	atom	1554	CG1	VAL	201	37.437	18.426	33.629	1.00	32.32
	atom	1555	CG2	VAL	201	35.844	19.539	32.076	1.00	32.58
	atom	1556	C	VAL	201	36.344	19.825	35.858	1.00	32.64
15	atom	1557	O	VAL	201	35.928	18.986	36.635	1.00	31.44
	atom	1558	N	GLU	202	37.390	20.574	36.197	1.00	32.74
	atom	1559	CA	GLU	202	38.090	20.471	37.461	1.00	33.49
	atom	1560	CB	GLU	202	39.183	21.527	37.526	1.00	35.52
	atom	1561	CG	GLU	202	39.768	21.794	38.900	1.00	39.42
20	atom	1562	CD	GLU	202	40.952	22.738	38.763	1.00	43.89
	atom	1563	OE1	GLU	202	42.025	22.306	38.291	1.00	46.56
	atom	1564	OE2	GLU	202	40.808	23.930	39.081	1.00	47.09
	atom	1565	C	GLU	202	37.156	20.635	38.656	1.00	33.68
	atom	1566	O	GLU	202	37.220	19.905	39.657	1.00	33.03
	atom	1567	N	PHE	203	36.293	21.659	38.560	1.00	33.67
25	atom	1568	CA	PHE	203	35.318	21.887	39.618	1.00	32.51
	atom	1569	CB	PHE	203	34.482	23.150	39.411	1.00	31.28
	atom	1570	CG	PHE	203	33.586	23.391	40.606	1.00	31.35
	atom	1571	CD1	PHE	203	34.129	23.626	41.857	1.00	29.80
30	atom	1572	CD2	PHE	203	32.208	23.365	40.462	1.00	30.73
	atom	1573	CE1	PHE	203	33.309	23.830	42.956	1.00	29.54
	atom	1574	CE2	PHE	203	31.382	23.593	41.553	1.00	30.11
	atom	1575	CZ	PHE	203	31.935	23.809	42.799	1.00	29.32
	atom	1576	C	PHE	203	34.402	20.668	39.793	1.00	31.59
	atom	1577	O	PHE	203	34.171	20.287	40.938	1.00	30.73
	atom	1578	N	LEU	204	33.927	20.070	38.715	1.00	31.00
35	atom	1579	CA	LEU	204	33.023	18.924	38.781	1.00	31.28
	atom	1580	CB	LEU	204	32.368	18.642	37.415	1.00	30.69

	atom	1581	CG	LEU	204	31.249	19.613	37.005	1.00	32.28
	atom	1582	CD1	LEU	204	30.638	19.305	35.647	1.00	30.99
	atom	1583	CD2	LEU	204	30.139	19.601	38.067	1.00	33.45
	atom	1584	C	LEU	204	33.737	17.700	39.346	1.00	30.48
5	atom	1585	O	LEU	204	33.302	17.083	40.324	1.00	29.05
	atom	1586	N	VAL	205	34.886	17.388	38.755	1.00	30.18
	atom	1587	CA	VAL	205	35.743	16.295	39.189	1.00	30.00
	atom	1588	CB	VAL	205	37.011	16.186	38.313	1.00	28.83
	atom	1589	CG1	VAL	205	37.863	15.024	38.798	1.00	29.40
10	atom	1590	CG2	VAL	205	36.628	15.979	36.855	1.00	27.25
	atom	1591	C	VAL	205	36.160	16.434	40.655	1.00	30.31
	atom	1592	O	VAL	205	36.049	15.424	41.384	1.00	30.22
	atom	1593	N	ASN	206	36.604	17.607	41.115	1.00	29.50
	atom	1594	CA	ASN	206	37.004	17.700	42.530	1.00	30.76
15	atom	1595	CB	ASN	206	37.862	18.916	42.845	1.00	29.42
	atom	1596	CG	ASN	206	39.230	18.929	42.216	1.00	30.67
	atom	1597	OD1	ASN	206	39.792	17.884	41.892	1.00	30.70
	atom	1598	ND2	ASN	206	39.783	20.134	42.037	1.00	30.69
	atom	1599	C	ASN	206	35.829	17.654	43.506	1.00	30.12
20	atom	1600	O	ASN	206	35.973	17.169	44.625	1.00	30.14
	atom	1601	N	THR	207	34.669	18.155	43.148	1.00	30.71
	atom	1602	CA	THR	207	33.490	18.093	43.996	1.00	31.87
	atom	1603	CB	THR	207	32.330	18.890	43.387	1.00	31.69
	atom	1604	OG1	THR	207	32.699	20.279	43.268	1.00	33.18
25	atom	1605	CG2	THR	207	31.089	18.755	44.242	1.00	31.99
	atom	1606	C	THR	207	33.084	16.621	44.122	1.00	33.08
	atom	1607	O	THR	207	32.935	16.096	45.222	1.00	32.62
	atom	1608	N	TRP	208	32.993	15.947	42.974	1.00	33.41
	atom	1609	CA	TRP	208	32.631	14.538	42.920	1.00	33.63
30	atom	1610	CB	TRP	208	32.650	14.041	41.467	1.00	32.15
	atom	1611	CG	TRP	208	32.081	12.671	41.303	1.00	30.93
	atom	1612	CD2	TRP	208	30.699	12.318	41.228	1.00	29.25
	atom	1613	CE2	TRP	208	30.635	10.916	41.078	1.00	31.13
	atom	1614	CE3	TRP	208	29.512	13.034	41.269	1.00	30.56
35	atom	1615	CD1	TRP	208	32.787	11.499	41.181	1.00	30.68
	atom	1616	NE1	TRP	208	31.928	10.433	41.048	1.00	30.82

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	atom	1617	CZ2	TRP	208	29.429	10.240	40.989	1.00	30.19
	atom	1618	CZ3	TRP	208	28.307	12.360	41.184	1.00	30.44
	atom	1619	CH2	TRP	208	28.269	10.973	41.038	1.00	29.20
	atom	1620	C	TRP	208	33.556	13.677	43.767	1.00	33.64
5	atom	1621	O	TRP	208	33.113	12.822	44.537	1.00	33.39
	atom	1622	N	LYS	209	34.854	13.926	43.680	1.00	34.34
	atom	1623	CA	LYS	209	35.842	13.151	44.419	1.00	35.55
	atom	1624	CB	LYS	209	37.211	13.214	43.739	1.00	36.79
	atom	1625	CG	LYS	209	37.255	12.334	42.481	1.00	37.29
10	atom	1626	CD	LYS	209	38.405	12.740	41.595	1.00	36.78
	atom	1627	CE	LYS	209	38.723	11.703	40.528	1.00	38.01
	atom	1628	NZ	LYS	209	40.121	11.930	40.024	1.00	37.45
	atom	1629	C	LYS	209	35.946	13.494	45.893	1.00	36.04
	atom	1630	O	LYS	209	36.487	12.669	46.616	1.00	35.22
15	atom	1631	N	SER	210	35.403	14.606	46.349	1.00	37.38
	atom	1632	CA	SER	210	35.410	14.978	47.750	1.00	38.66
	atom	1633	CB	SER	210	35.244	16.500	47.901	1.00	36.64
	atom	1634	OG	SER	210	34.006	16.903	47.368	1.00	37.31
	atom	1635	C	SER	210	34.332	14.254	48.544	1.00	39.97
20	atom	1636	O	SER	210	34.425	14.213	49.780	1.00	41.73
	atom	1637	N	LYS	211	33.320	13.682	47.904	1.00	40.39
	atom	1638	CA	LYS	211	32.294	12.966	48.659	1.00	40.78
	atom	1639	CB	LYS	211	30.969	12.844	47.911	1.00	39.35
	atom	1640	CG	LYS	211	30.406	14.114	47.297	1.00	36.33
25	atom	1641	CD	LYS	211	30.172	15.145	48.394	1.00	32.41
	atom	1642	CE	LYS	211	30.706	16.494	47.993	1.00	33.68
	atom	1643	NZ	LYS	211	29.726	17.578	47.767	1.00	30.46
	atom	1644	C	LYS	211	32.804	11.548	48.900	1.00	41.51
	atom	1645	O	LYS	211	33.529	11.042	48.035	1.00	42.27
30	atom	1646	N	LYS	212	32.415	10.956	50.018	1.00	42.09
	atom	1647	CA	LYS	212	32.813	9.570	50.260	1.00	42.73
	atom	1648	CB	LYS	212	32.647	9.121	51.700	1.00	47.67
	atom	1649	CG	LYS	212	33.835	9.544	52.573	1.00	52.77
	atom	1650	CD	LYS	212	33.410	10.635	53.557	1.00	55.96
35	atom	1651	CE	LYS	212	34.486	11.700	53.694	1.00	56.85
	atom	1652	NZ	LYS	212	34.562	12.538	52.446	1.00	58.01

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5	atom	1653	C	LYS	212	32.042	8.668	49.295	1.00	41.96
	atom	1654	O	LYS	212	32.661	7.799	48.693	1.00	41.86
	atom	1655	N	ASN	213	30.738	8.855	49.164	1.00	40.57
	atom	1656	CA	ASN	213	29.897	8.132	48.232	1.00	40.24
	atom	1657	CB	ASN	213	28.908	7.156	48.845	1.00	43.93
	atom	1658	CG	ASN	213	29.522	5.957	49.514	1.00	46.78
	atom	1659	OD1	ASN	213	29.491	5.860	50.743	1.00	48.49
	atom	1660	ND2	ASN	213	30.085	5.028	48.751	1.00	48.81
10	atom	1661	C	ASN	213	29.061	9.189	47.478	1.00	38.36
	atom	1662	O	ASN	213	28.001	9.567	47.956	1.00	36.73
	atom	1663	N	PRO	214	29.593	9.663	46.357	1.00	36.90
	atom	1664	CD	PRO	214	30.897	9.244	45.766	1.00	36.04
15	atom	1665	CA	PRO	214	28.961	10.704	45.586	1.00	34.83
	atom	1666	CB	PRO	214	29.999	11.069	44.528	1.00	34.47
	atom	1667	CG	PRO	214	30.818	9.848	44.372	1.00	35.67
	atom	1668	C	PRO	214	27.667	10.321	44.905	1.00	33.48
20	atom	1669	O	PRO	214	27.518	9.241	44.371	1.00	32.25
	atom	1670	N	MET	215	26.719	11.247	44.901	1.00	32.89
	atom	1671	CA	MET	215	25.448	11.115	44.209	1.00	31.22
	atom	1672	CB	MET	215	24.242	10.733	45.053	1.00	29.27
25	atom	1673	CG	MET	215	22.935	10.582	44.293	1.00	25.54
	atom	1674	SD	MET	215	22.060	12.125	43.986	1.00	24.21
	atom	1675	CE	MET	215	21.271	12.381	45.589	1.00	26.77
	atom	1676	C	MET	215	25.186	12.495	43.596	1.00	30.38
30	atom	1677	O	MET	215	25.512	13.467	44.278	1.00	30.08
	atom	1678	N	GLY	216	24.648	12.506	42.385	1.00	30.51
	atom	1679	CA	GLY	216	24.367	13.763	41.718	1.00	30.00
	atom	1680	C	GLY	216	23.233	13.688	40.710	1.00	30.39
35	atom	1681	O	GLY	216	22.832	12.623	40.232	1.00	28.99
	atom	1682	N	PHE	217	22.734	14.895	40.377	1.00	30.36
	atom	1683	CA	PHE	217	21.605	14.973	39.459	1.00	29.58
	atom	1684	CB	PHE	217	20.311	14.655	40.206	1.00	25.93
35	atom	1685	CG	PHE	217	19.855	15.599	41.274	1.00	25.74
	atom	1686	CD1	PHE	217	20.243	15.387	42.587	1.00	25.74
	atom	1687	CD2	PHE	217	19.025	16.690	41.006	1.00	24.43
	atom	1688	CE1	PHE	217	19.828	16.213	43.619	1.00	25.92

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5	atom	1689	CE2	PHE	217	18.611	17.534	42.020	1.00	24.72
	atom	1690	CZ	PHE	217	19.000	17.291	43.327	1.00	26.23
	atom	1691	C	PHE	217	21.506	16.365	38.855	1.00	30.02
	atom	1692	O	PHE	217	21.876	17.336	39.518	1.00	30.75
	atom	1693	NA	SER	218	20.998	16.409	37.639	1.00	29.45
	atom	1694	CA	SER	218	20.743	17.692	36.996	1.00	30.72
	atom	1695	CB	SER	218	21.100	17.649	35.513	1.00	28.55
	atom	1696	OG	SER	218	20.526	16.471	34.951	1.00	31.16
10	atom	1697	C	SER	218	19.243	17.920	37.218	1.00	32.13
	atom	1698	O	SER	218	18.495	16.935	37.362	1.00	29.92
	atom	1699	N	TYR	219	18.856	19.199	37.306	1.00	33.57
	atom	1700	CA	TYR	219	17.433	19.485	37.502	1.00	34.36
	atom	1701	CB	TYR	219	17.185	20.246	38.813	1.00	34.43
15	atom	1702	CG	TYR	219	15.699	20.396	39.089	1.00	34.58
	atom	1703	CD1	TYR	219	14.991	19.339	39.664	1.00	34.12
	atom	1704	CE1	TYR	219	13.640	19.446	39.927	1.00	33.31
	atom	1705	CD2	TYR	219	15.010	21.556	38.772	1.00	34.04
	atom	1706	CE2	TYR	219	13.656	21.675	39.035	1.00	33.64
20	atom	1707	CZ	TYR	219	12.979	20.616	39.609	1.00	33.80
	atom	1708	OH	TYR	219	11.627	20.743	39.855	1.00	33.27
	atom	1709	C	TYR	219	16.913	20.281	36.318	1.00	34.60
	atom	1710	O	TYR	219	17.396	21.387	36.092	1.00	34.60
	atom	1711	N	ASP	220	15.964	19.741	35.584	1.00	35.98
25	atom	1712	CA	ASP	220	15.389	20.432	34.427	1.00	37.31
	atom	1713	CB	ASP	220	15.172	19.412	33.306	1.00	41.24
	atom	1714	CG	ASP	220	14.571	19.997	32.050	1.00	45.42
	atom	1715	OD1	ASP	220	14.383	19.204	31.091	1.00	48.98
	atom	1716	OD2	ASP	220	14.275	21.210	31.991	1.00	46.14
30	atom	1717	C	ASP	220	14.059	21.097	34.761	1.00	36.86
	atom	1718	O	ASP	220	13.007	20.457	34.856	1.00	37.13
	atom	1719	N	THR	221	14.092	22.404	34.944	1.00	36.41
	atom	1720	CA	THR	221	12.869	23.156	35.221	1.00	36.06
	atom	1721	CB	THR	221	13.188	24.585	35.683	1.00	34.95
35	atom	1722	OG1	THR	221	13.759	24.530	36.996	1.00	34.98
	atom	1723	CG2	THR	221	11.946	25.463	35.720	1.00	33.32
	atom	1724	C	THR	221	12.043	23.190	33.938	1.00	36.34

	atom	1725	O	THR	221	12.625	23.405	32.875	1.00	34.88
	atom	1726	N	ARG	222	10.731	22.983	34.039	1.00	36.98
	atom	1727	CA	ARG	222	9.884	23.060	32.844	1.00	37.57
	atom	1728	CB	ARG	222	8.508	22.483	33.148	1.00	40.99
5	atom	1729	CG	ARG	222	7.479	22.624	32.026	1.00	45.90
	atom	1730	CD	ARG	222	6.087	22.255	32.521	1.00	51.30
	atom	1731	NE	ARG	222	5.301	23.366	33.056	1.00	54.33
	atom	1732	CZ	ARG	222	4.534	23.272	34.147	1.00	54.54
	atom	1733	NH1	ARG	222	4.494	22.117	34.802	1.00	53.25
10	atom	1734	NH2	ARG	222	3.835	24.316	34.575	1.00	54.17
	atom	1735	C	ARG	222	9.753	24.530	32.427	1.00	37.27
	atom	1736	O	ARG	222	9.311	25.326	33.263	1.00	36.49
	atom	1737	N	CYS	223	10.165	24.907	31.223	1.00	35.83
	atom	1738	CA	CYS	223	10.044	26.285	30.761	1.00	35.59
15	atom	1739	CB	CYS	223	8.614	26.536	30.244	1.00	39.03
	atom	1740	SG	CYS	223	8.139	25.610	28.771	1.00	42.18
	atom	1741	C	CYS	223	10.322	27.305	31.856	1.00	34.38
	atom	1742	O	CYS	223	9.422	28.052	32.245	1.00	34.40
	atom	1743	N	PHE	224	11.549	27.379	32.335	1.00	33.26
20	atom	1744	CA	PHE	224	11.987	28.195	33.439	1.00	31.12
	atom	1745	CB	PHE	224	13.508	28.080	33.648	1.00	28.63
	atom	1746	CG	PHE	224	14.020	28.724	34.906	1.00	27.69
	atom	1747	CD1	PHE	224	14.219	27.985	36.066	1.00	28.36
	atom	1748	CD2	PHE	224	14.310	30.074	34.943	1.00	24.89
25	atom	1749	CE1	PHE	224	14.692	28.565	37.228	1.00	28.03
	atom	1750	CE2	PHE	224	14.779	30.664	36.095	1.00	26.24
	atom	1751	CZ	PHE	224	14.980	29.921	37.237	1.00	26.41
	atom	1752	C	PHE	224	11.589	29.654	33.376	1.00	31.31
	atom	1753	O	PHE	224	11.119	30.162	34.403	1.00	29.83
30	atom	1754	N	ASP	225	11.801	30.329	32.250	1.00	31.32
	atom	1755	CA	ASP	225	11.481	31.747	32.148	1.00	31.56
	atom	1756	CB	ASP	225	11.838	32.314	30.784	1.00	30.13
	atom	1757	CG	ASP	225	13.331	32.424	30.537	1.00	31.05
	atom	1758	OD1	ASP	225	14.122	32.257	31.480	1.00	29.58
35	atom	1759	OD2	ASP	225	13.714	32.677	29.369	1.00	32.57
	atom	1760	C	ASP	225	10.005	32.014	32.438	1.00	32.58

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	atom	1761	O	ASP	225	9.650	32.970	33.147	1.00	31.78
	atom	1762	N	SER	226	9.118	31.129	31.984	1.00	31.71
	atom	1763	CA	SER	226	7.702	31.360	32.245	1.00	33.05
	atom	1764	CB	SER	226	6.837	30.722	31.162	1.00	32.59
5	atom	1765	OG	SER	226	6.479	29.429	31.569	1.00	37.12
	atom	1766	C	SER	226	7.324	30.979	33.665	1.00	33.65
	atom	1767	O	SER	226	6.243	31.353	34.148	1.00	33.81
	atom	1768	N	THR	227	8.212	30.351	34.435	1.00	33.15
	atom	1769	CA	THR	227	7.942	30.041	35.832	1.00	32.08
10	atom	1770	CB	THR	227	8.662	28.748	36.256	1.00	32.39
	atom	1771	OG1	THR	227	10.056	29.012	36.439	1.00	30.64
	atom	1772	CG2	THR	227	8.404	27.685	35.193	1.00	29.17
	atom	1773	C	THR	227	8.376	31.179	36.756	1.00	32.16
	atom	1774	O	THR	227	7.981	31.229	37.922	1.00	30.79
15	atom	1775	N	VAL	228	9.182	32.109	36.241	1.00	31.23
	atom	1776	CA	VAL	228	9.666	33.230	37.011	1.00	30.64
	atom	1777	CB	VAL	228	10.735	34.053	36.276	1.00	28.53
	atom	1778	CG1	VAL	228	11.236	35.192	37.165	1.00	25.31
	atom	1779	CG2	VAL	228	11.870	33.141	35.844	1.00	28.13
20	atom	1780	C	VAL	228	8.495	34.160	37.348	1.00	31.86
	atom	1781	O	VAL	228	7.806	34.634	36.433	1.00	30.85
	atom	1782	N	THR	229	8.345	34.453	38.643	1.00	31.93
	atom	1783	CA	THR	229	7.226	35.303	39.030	1.00	33.44
	atom	1784	CB	THR	229	6.614	34.874	40.381	1.00	30.26
25	atom	1785	OG1	THR	229	7.629	35.031	41.384	1.00	26.91
	atom	1786	CG2	THR	229	6.116	33.441	40.295	1.00	29.78
	atom	1787	C	THR	229	7.631	36.757	39.173	1.00	35.69
	atom	1788	O	THR	229	8.805	37.109	39.312	1.00	35.76
	atom	1789	N	GLU	230	6.601	37.590	39.340	1.00	36.59
30	atom	1790	CA	GLU	230	6.804	39.011	39.616	1.00	38.22
	atom	1791	CB	GLU	230	5.472	39.763	39.736	1.00	43.15
	atom	1792	CG	GLU	230	4.426	39.216	38.784	1.00	50.30
	atom	1793	CD	GLU	230	3.273	40.123	38.424	1.00	53.76
	atom	1794	OE1	GLU	230	2.529	39.734	37.488	1.00	54.09
35	atom	1795	OE2	GLU	230	3.123	41.201	39.056	1.00	54.15
	atom	1796	C	GLU	230	7.541	39.118	40.952	1.00	37.04

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	atom	1797	O	GLU	230	8.419	39.954	41.187	1.00	37.47
	atom	1798	N	ASN	231	7.139	38.241	41.863	1.00	35.14
	atom	1799	CA	ASN	231	7.792	38.143	43.160	1.00	35.82
	atom	1800	CB	ASN	231	7.135	37.067	44.032	1.00	37.63
5	atom	1801	CG	ASN	231	8.004	36.655	45.209	1.00	42.02
	atom	1802	OD1	ASN	231	7.950	37.312	46.264	1.00	43.08
	atom	1803	ND2	ASN	231	8.847	35.616	45.100	1.00	41.24
	atom	1804	C	ASN	231	9.276	37.846	42.934	1.00	34.56
	atom	1805	O	ASN	231	10.136	38.510	43.512	1.00	34.92
10	atom	1806	N	ASP	232	9.601	36.859	42.100	1.00	33.75
	atom	1807	CA	ASP	232	10.990	36.505	41.834	1.00	32.93
	atom	1808	CB	ASP	232	11.156	35.355	40.838	1.00	31.55
	atom	1809	CG	ASP	232	10.499	34.064	41.257	1.00	30.67
	atom	1810	OD1	ASP	232	10.500	33.838	42.480	1.00	31.79
15	atom	1811	OD2	ASP	232	9.998	33.285	40.421	1.00	30.40
	atom	1812	C	ASP	232	11.757	37.717	41.281	1.00	31.86
	atom	1813	O	ASP	232	12.867	37.959	41.741	1.00	30.27
	atom	1814	N	ILE	233	11.136	38.429	40.349	1.00	30.49
	atom	1815	CA	ILE	233	11.741	39.577	39.702	1.00	31.10
20	atom	1816	CB	ILE	233	11.020	39.982	38.414	1.00	28.69
	atom	1817	CG2	ILE	233	11.701	41.187	37.786	1.00	26.78
	atom	1818	CG1	ILE	233	11.006	38.795	37.442	1.00	28.95
	atom	1819	CD1	ILE	233	9.965	38.879	36.334	1.00	29.80
	atom	1820	C	ILE	233	11.911	40.772	40.636	1.00	31.88
25	atom	1821	O	ILE	233	12.958	41.424	40.579	1.00	30.72
	atom	1822	N	ARG	234	10.964	40.944	41.558	1.00	31.85
	atom	1823	CA	ARG	234	11.089	41.991	42.564	1.00	32.92
	atom	1824	CB	ARG	234	9.740	42.274	43.233	1.00	33.58
	atom	1825	CG	ARG	234	8.698	42.868	42.278	1.00	33.48
30	atom	1826	CD	ARG	234	7.527	43.477	43.065	1.00	32.42
	atom	1827	NE	ARG	234	6.594	44.142	42.154	1.00	32.66
	atom	1828	CZ	ARG	234	6.830	45.320	41.589	1.00	33.63
	atom	1829	NH1	ARG	234	7.960	45.972	41.857	1.00	33.80
	atom	1830	NH2	ARG	234	5.994	45.908	40.743	1.00	31.53
35	atom	1831	C	ARG	234	12.121	41.535	43.595	1.00	34.02
	atom	1832	O	ARG	234	12.855	42.344	44.190	1.00	33.93

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	atom	1833	N	VAL	235	12.207	40.202	43.782	1.00	32.95
	atom	1834	CA	VAL	235	13.224	39.696	44.706	1.00	33.27
	atom	1835	CB	VAL	235	12.994	38.226	45.073	1.00	33.69
	atom	1836	CG1	VAL	235	14.233	37.542	45.623	1.00	31.65
5	atom	1837	CG2	VAL	235	11.870	38.123	46.116	1.00	31.75
	atom	1838	C	VAL	235	14.609	39.997	44.140	1.00	33.47
	atom	1839	O	VAL	235	15.457	40.482	44.904	1.00	33.59
	atom	1840	N	GLU	236	14.844	39.785	42.846	1.00	33.23
	atom	1841	CA	GLU	236	16.147	40.042	42.254	1.00	34.27
10	atom	1842	CB	GLU	236	16.245	39.721	40.749	1.00	36.16
	atom	1843	CG	GLU	236	15.399	38.554	40.315	1.00	41.35
	atom	1844	CD	GLU	236	15.380	38.225	38.843	1.00	43.16
	atom	1845	OE1	GLU	236	15.724	39.125	38.040	1.00	44.54
	atom	1846	OE2	GLU	236	15.046	37.051	38.520	1.00	42.79
15	atom	1847	C	GLU	236	16.524	41.516	42.429	1.00	33.20
	atom	1848	O	GLU	236	17.639	41.872	42.793	1.00	32.00
	atom	1849	N	GLU	237	15.564	42.382	42.114	1.00	32.70
	atom	1850	CA	GLU	237	15.742	43.822	42.250	1.00	32.35
	atom	1851	CB	GLU	237	14.415	44.478	41.933	1.00	33.85
20	atom	1852	CG	GLU	237	14.526	45.899	41.476	1.00	37.22
	atom	1853	CD	GLU	237	14.175	46.928	42.518	1.00	40.18
	atom	1854	OE1	GLU	237	14.050	48.101	42.108	1.00	41.00
	atom	1855	OE2	GLU	237	14.045	46.565	43.704	1.00	41.00
	atom	1856	C	GLU	237	16.214	44.188	43.649	1.00	32.24
25	atom	1857	O	GLU	237	17.238	44.866	43.798	1.00	32.51
	atom	1858	N	SER	238	15.566	43.649	44.690	1.00	31.11
	atom	1859	CA	SER	238	16.030	43.908	46.050	1.00	30.88
	atom	1860	CB	SER	238	15.089	43.406	47.141	1.00	29.74
	atom	1861	OG	SER	238	15.187	42.011	47.345	1.00	34.88
30	atom	1862	C	SER	238	17.450	43.374	46.209	1.00	30.13
	atom	1863	O	SER	238	18.274	44.024	46.876	1.00	30.47
	atom	1864	N	ILE	239	17.788	42.242	45.590	1.00	29.38
	atom	1865	CA	ILE	239	19.187	41.790	45.668	1.00	29.93
	atom	1866	CB	ILE	239	19.381	40.378	45.121	1.00	29.85
35	atom	1867	CG2	ILE	239	20.851	39.979	45.135	1.00	29.33
	atom	1868	CG1	ILE	239	18.549	39.398	45.958	1.00	28.55

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	atom	1869	CD1	ILE	239	18.533	37.978	45.418	1.00	28.71
	atom	1870	C	ILE	239	20.086	42.831	45.002	1.00	29.87
	atom	1871	O	ILE	239	21.023	43.339	45.640	1.00	29.57
	atom	1872	N	TYR	240	19.754	43.282	43.798	1.00	30.19
5	atom	1873	CA	TYR	240	20.512	44.326	43.117	1.00	31.40
	atom	1874	CB	TYR	240	19.931	44.772	41.774	1.00	30.94
	atom	1875	CG	TYR	240	19.771	43.671	40.752	1.00	32.31
	atom	1876	CD1	TYR	240	18.732	43.698	39.826	1.00	33.66
	atom	1877	CE1	TYR	240	18.581	42.679	38.890	1.00	33.95
10	atom	1878	CD2	TYR	240	20.642	42.592	40.722	1.00	32.10
	atom	1879	CE2	TYR	240	20.506	41.581	39.804	1.00	32.52
	atom	1880	CZ	TYR	240	19.478	41.631	38.889	1.00	33.26
	atom	1881	OH	TYR	240	19.349	40.603	37.986	1.00	33.98
	atom	1882	C	TYR	240	20.677	45.572	43.984	1.00	31.59
15	atom	1883	O	TYR	240	21.810	46.031	44.154	1.00	31.55
	atom	1884	N	GLN	241	19.590	46.071	44.566	1.00	31.05
	atom	1885	CA	GLN	241	19.617	47.250	45.416	1.00	31.74
	atom	1886	CB	GLN	241	18.204	47.800	45.673	1.00	30.62
	atom	1887	CG	GLN	241	17.373	48.094	44.428	1.00	31.27
20	atom	1888	CD	GLN	241	17.687	49.440	43.810	1.00	31.51
	atom	1889	OE1	GLN	241	18.495	50.187	44.368	1.00	33.92
	atom	1890	NE2	GLN	241	17.099	49.809	42.673	1.00	30.90
	atom	1891	C	GLN	241	20.366	47.076	46.730	1.00	31.69
	atom	1892	O	GLN	241	20.681	48.096	47.366	1.00	32.51
25	atom	1893	N	CYS	242	20.799	45.895	47.158	1.00	31.74
	atom	1894	CA	CYS	242	21.630	45.684	48.332	1.00	30.46
	atom	1895	CB	CYS	242	21.713	44.212	48.751	1.00	32.06
	atom	1896	SG	CYS	242	20.263	43.562	49.650	1.00	31.70
	atom	1897	C	CYS	242	23.060	46.160	48.054	1.00	30.83
30	atom	1898	O	CYS	242	23.850	46.463	48.951	1.00	30.90
	atom	1899	N	CYS	243	23.433	46.203	46.779	1.00	29.93
	atom	1900	CA	CYS	243	24.724	46.659	46.330	1.00	29.97
	atom	1901	CB	CYS	243	24.892	46.466	44.819	1.00	28.11
	atom	1902	SG	CYS	243	24.884	44.790	44.155	1.00	25.48
35	atom	1903	C	CYS	243	24.884	48.150	46.649	1.00	29.91
	atom	1904	O	CYS	243	23.909	48.882	46.848	1.00	29.91

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	atom	1905	N	ASP	244	26.132	48.584	46.687	1.00	29.89
	atom	1906	CA	ASP	244	26.412	50.022	46.879	1.00	30.38
	atom	1907	CB	ASP	244	27.725	50.228	47.608	1.00	32.08
	atom	1908	CG	ASP	244	28.160	51.661	47.767	1.00	34.38
5	atom	1909	OD1	ASP	244	27.452	52.617	47.387	1.00	36.57
	atom	1910	OD2	ASP	244	29.279	51.846	48.303	1.00	37.77
	atom	1911	C	ASP	244	26.425	50.584	45.458	1.00	29.68
	atom	1912	O	ASP	244	27.334	50.301	44.681	1.00	28.69
	atom	1913	N	LEU	245	25.345	51.262	45.084	1.00	30.49
10	atom	1914	CA	LEU	245	25.220	51.755	43.719	1.00	31.01
	atom	1915	CB	LEU	245	23.999	51.127	43.049	1.00	28.53
	atom	1916	CG	LEU	245	23.775	49.624	43.151	1.00	27.96
	atom	1917	CD1	LEU	245	22.293	49.294	42.927	1.00	27.18
	atom	1918	CD2	LEU	245	24.661	48.892	42.149	1.00	26.51
15	atom	1919	C	LEU	245	25.108	53.271	43.701	1.00	31.97
	atom	1920	O	LEU	245	24.868	53.858	44.755	1.00	33.52
	atom	1921	N	ALA	246	25.289	53.886	42.544	1.00	31.24
	atom	1922	CA	ALA	246	25.139	55.324	42.419	1.00	32.14
	atom	1923	CB	ALA	246	25.867	55.806	41.171	1.00	28.13
20	atom	1924	C	ALA	246	23.651	55.647	42.338	1.00	33.72
	atom	1925	O	ALA	246	22.848	54.945	41.698	1.00	33.92
	atom	1926	N	PRO	247	23.227	56.755	42.943	1.00	34.03
	atom	1927	CD	PRO	247	24.074	57.648	43.771	1.00	33.46
	atom	1928	CA	PRO	247	21.834	57.188	42.955	1.00	34.03
25	atom	1929	CB	PRO	247	21.902	58.639	43.430	1.00	32.55
	atom	1930	CG	PRO	247	23.089	58.651	44.335	1.00	33.43
	atom	1931	C	PRO	247	21.099	57.062	41.639	1.00	34.44
	atom	1932	O	PRO	247	19.908	56.729	41.614	1.00	34.98
	atom	1933	N	GLU	248	21.736	57.341	40.515	1.00	34.23
30	atom	1934	CA	GLU	248	21.116	57.236	39.205	1.00	34.73
	atom	1935	CB	GLU	248	21.970	57.982	38.210	1.00	36.30
	atom	1936	CG	GLU	248	21.351	58.821	37.130	1.00	38.23
	atom	1937	CD	GLU	248	22.445	59.391	36.234	1.00	41.03
	atom	1938	OE1	GLU	248	23.573	59.610	36.751	1.00	43.01
35	atom	1939	OE2	GLU	248	22.186	59.600	35.028	1.00	39.89
	atom	1940	C	GLU	248	20.953	55.767	38.808	1.00	34.35

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	atom	1941	O	GLU	248	19.999	55.462	38.080	1.00	34.67
	atom	1942	N	ALA	249	21.858	54.890	39.249	1.00	32.72
	atom	1943	CA	ALA	249	21.725	53.473	38.913	1.00	31.73
	atom	1944	CB	ALA	249	22.940	52.633	39.288	1.00	29.30
5	atom	1945	C	ALA	249	20.522	52.876	39.643	1.00	30.31
	atom	1946	O	ALA	249	19.744	52.171	39.005	1.00	30.58
	atom	1947	N	ARG	250	20.365	53.211	40.917	1.00	29.18
	atom	1948	CA	ARG	250	19.256	52.680	41.711	1.00	28.53
	atom	1949	CB	ARG	250	19.203	53.183	43.149	1.00	26.75
10	atom	1950	CG	ARG	250	20.409	52.915	44.029	1.00	26.39
	atom	1951	CD	ARG	250	20.163	53.350	45.483	1.00	27.42
	atom	1952	NE	ARG	250	21.282	52.881	46.282	1.00	27.05
	atom	1953	CZ	ARG	250	21.578	51.630	46.616	1.00	28.38
	atom	1954	NH1	ARG	250	20.797	50.603	46.255	1.00	27.62
15	atom	1955	NH2	ARG	250	22.703	51.446	47.312	1.00	24.31
	atom	1956	C	ARG	250	17.950	52.988	40.987	1.00	27.94
	atom	1957	O	ARG	250	17.163	52.081	40.743	1.00	27.27
	atom	1958	N	GLN	251	17.781	54.252	40.617	1.00	28.58
	atom	1959	CA	GLN	251	16.601	54.714	39.896	1.00	29.25
20	atom	1960	CB	GLN	251	16.664	56.231	39.684	1.00	27.02
	atom	1961	CG	GLN	251	15.497	56.809	38.890	1.00	29.30
	atom	1962	CD	GLN	251	14.307	57.164	39.765	1.00	29.04
	atom	1963	OE1	GLN	251	14.238	56.718	40.912	1.00	28.49
	atom	1964	NE2	GLN	251	13.371	57.956	39.263	1.00	27.91
25	atom	1965	C	GLN	251	16.397	54.064	38.532	1.00	28.87
	atom	1966	O	GLN	251	15.265	53.730	38.167	1.00	29.21
	atom	1967	N	ALA	252	17.449	53.863	37.745	1.00	29.00
	atom	1968	CA	ALA	252	17.249	53.226	36.430	1.00	29.47
	atom	1969	CB	ALA	252	18.441	53.450	35.516	1.00	27.63
30	atom	1970	C	ALA	252	16.941	51.741	36.614	1.00	29.33
	atom	1971	O	ALA	252	16.224	51.132	35.803	1.00	28.78
	atom	1972	N	ILE	253	17.486	51.163	37.688	1.00	28.79
	atom	1973	CA	ILE	253	17.257	49.740	37.968	1.00	29.82
	atom	1974	CB	ILE	253	18.278	49.212	38.983	1.00	29.96
35	atom	1975	CG2	ILE	253	17.882	47.861	39.572	1.00	30.14
	atom	1976	CG1	ILE	253	19.682	49.151	38.357	1.00	27.97

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5	atom	1977	CD1	ILE	253	20.781	48.987	39.394	1.00	25.16
	atom	1978	C	ILE	253	15.820	49.516	38.431	1.00	30.68
	atom	1979	O	ILE	253	15.144	48.602	37.969	1.00	29.43
	atom	1980	N	LYS	254	15.276	50.401	39.271	1.00	31.45
	atom	1981	CA	LYS	254	13.877	50.260	39.707	1.00	31.70
	atom	1982	CB	LYS	254	13.590	51.263	40.818	1.00	30.17
	atom	1983	CG	LYS	254	12.179	51.789	40.901	1.00	32.54
	atom	1984	CD	LYS	254	11.911	52.734	42.063	1.00	33.51
10	atom	1985	CE	LYS	254	12.456	54.129	41.780	1.00	35.02
	atom	1986	NZ	LYS	254	11.537	55.177	42.319	1.00	38.11
	atom	1987	C	LYS	254	12.988	50.453	38.484	1.00	31.76
	atom	1988	O	LYS	254	12.042	49.741	38.158	1.00	32.10
15	atom	1989	N	SER	255	13.292	51.524	37.752	1.00	31.34
	atom	1990	CA	SER	255	12.532	51.837	36.554	1.00	32.23
	atom	1991	CB	SER	255	13.111	53.087	35.898	1.00	31.85
	atom	1992	OG	SER	255	12.188	53.573	34.941	1.00	33.85
	atom	1993	C	SER	255	12.514	50.677	35.560	1.00	31.80
	atom	1994	O	SER	255	11.458	50.270	35.064	1.00	31.55
	atom	1995	N	LEU	256	13.682	50.101	35.268	1.00	31.94
	atom	1996	CA	LEU	256	13.761	48.981	34.333	1.00	30.51
20	atom	1997	CB	LEU	256	15.179	48.567	33.940	1.00	30.00
	atom	1998	CG	LEU	256	15.995	49.520	33.068	1.00	30.40
	atom	1999	CD1	LEU	256	17.481	49.171	33.103	1.00	28.92
	atom	2000	CD2	LEU	256	15.495	49.518	31.624	1.00	28.39
25	atom	2001	C	LEU	256	13.013	47.776	34.886	1.00	29.34
	atom	2002	O	LEU	256	12.424	47.067	34.055	1.00	28.40
	atom	2003	N	THR	257	13.021	47.511	36.195	1.00	29.37
	atom	2004	CA	THR	257	12.276	46.336	36.630	1.00	30.23
30	atom	2005	CB	THR	257	12.759	45.589	37.868	1.00	33.02
	atom	2006	OG1	THR	257	11.735	45.568	38.879	1.00	36.13
	atom	2007	CG2	THR	257	14.099	46.016	38.362	1.00	27.89
	atom	2008	C	THR	257	10.766	46.556	36.662	1.00	30.84
35	atom	2009	O	THR	257	10.069	45.601	36.273	1.00	30.66
	atom	2010	N	GLU	258	10.273	47.754	36.941	1.00	30.17
	atom	2011	CA	GLU	258	8.858	48.037	36.900	1.00	30.50
	atom	2012	CB	GLU	258	8.532	49.424	37.484	1.00	33.29

5	atom	2013	CG	GLU	258	8.508	49.513	39.001	1.00	35.92
	atom	2014	CD	GLU	258	7.451	48.609	39.598	1.00	36.56
	atom	2015	OE1	GLU	258	6.355	48.501	39.014	1.00	39.71
	atom	2016	OE2	GLU	258	7.771	48.021	40.639	1.00	38.35
	atom	2017	C	GLU	258	8.289	48.121	35.477	1.00	30.58
	atom	2018	O	GLU	258	7.112	47.804	35.264	1.00	28.37
	atom	2019	N	ARG	259	9.133	48.628	34.555	1.00	29.58
	atom	2020	CA	ARG	259	8.625	48.879	33.213	1.00	28.63
10	atom	2021	CB	ARG	259	9.170	50.226	32.688	1.00	29.39
	atom	2022	CG	ARG	259	8.813	51.405	33.589	1.00	28.34
	atom	2023	CD	ARG	259	9.389	52.741	33.148	1.00	28.75
	atom	2024	NE	ARG	259	9.217	53.065	31.749	1.00	28.65
	atom	2025	CZ	ARG	259	9.751	54.053	31.061	1.00	28.28
15	atom	2026	NH1	ARG	259	10.544	54.948	31.636	1.00	28.28
	atom	2027	NH2	ARG	259	9.495	54.181	29.759	1.00	28.16
	atom	2028	C	ARG	259	8.925	47.807	32.193	1.00	28.58
	atom	2029	O	ARG	259	8.266	47.811	31.151	1.00	27.71
20	atom	2030	N	LEU	260	9.918	46.973	32.460	1.00	29.20
	atom	2031	CA	LEU	260	10.341	45.981	31.478	1.00	29.41
	atom	2032	CB	LEU	260	11.684	46.447	30.923	1.00	29.72
	atom	2033	CG	LEU	260	12.197	46.039	29.549	1.00	31.17
	atom	2034	CD1	LEU	260	13.721	45.947	29.599	1.00	29.50
	atom	2035	CD2	LEU	260	11.561	44.796	28.961	1.00	30.71
	atom	2036	C	LEU	260	10.485	44.581	32.055	1.00	29.19
25	atom	2037	O	LEU	260	9.897	43.646	31.519	1.00	29.29
	atom	2038	N	TYR	261	11.272	44.385	33.097	1.00	29.50
	atom	2039	CA	TYR	261	11.538	43.066	33.645	1.00	30.04
30	atom	2040	CB	TYR	261	12.633	43.157	34.719	1.00	29.84
	atom	2041	CG	TYR	261	13.948	43.713	34.194	1.00	28.50
	atom	2042	CD1	TYR	261	14.269	43.578	32.850	1.00	27.55
	atom	2043	CE1	TYR	261	15.449	44.069	32.345	1.00	27.36
	atom	2044	CD2	TYR	261	14.864	44.342	35.028	1.00	26.74
	atom	2045	CE2	TYR	261	16.053	44.812	34.526	1.00	26.27
	atom	2046	CZ	TYR	261	16.349	44.670	33.192	1.00	26.36
35	atom	2047	OH	TYR	261	17.513	45.143	32.636	1.00	26.74
	atom	2048	C	TYR	261	10.341	42.343	34.226	1.00	31.33

	atom	2049	O	TYR	261	10.176	41.155	33.938	1.00	31.94
	atom	2050	N	ILE	262	9.512	43.031	35.002	1.00	31.51
	atom	2051	CA	ILE	262	8.357	42.417	35.627	1.00	32.29
	atom	2052	CB	ILE	262	7.743	43.326	36.693	1.00	37.27
5	atom	2053	CG2	ILE	262	6.984	44.508	36.088	1.00	39.35
	atom	2054	CG1	ILE	262	6.813	42.487	37.579	1.00	41.12
	atom	2055	CD1	ILE	262	6.561	43.178	38.906	1.00	45.20
	atom	2056	C	ILE	262	7.341	41.941	34.609	1.00	31.85
	atom	2057	O	ILE	262	6.662	40.931	34.827	1.00	31.62
10	atom	2058	N	GLY	263	7.243	42.593	33.457	1.00	31.76
	atom	2059	CA	GLY	263	6.296	42.129	32.443	1.00	31.63
	atom	2060	C	GLY	263	6.027	43.263	31.466	1.00	32.65
	atom	2061	O	GLY	263	6.658	44.315	31.602	1.00	32.33
	atom	2062	N	GLY	264	5.093	43.054	30.536	1.00	32.81
15	atom	2063	CA	GLY	264	4.775	44.099	29.582	1.00	33.45
	atom	2064	C	GLY	264	4.121	43.577	28.315	1.00	34.18
	atom	2065	O	GLY	264	3.856	42.380	28.182	1.00	35.43
	atom	2066	N	PRO	265	3.774	44.486	27.412	1.00	33.62
	atom	2067	CD	PRO	265	4.032	45.941	27.541	1.00	33.87
20	atom	2068	CA	PRO	265	3.143	44.177	26.145	1.00	33.40
	atom	2069	CB	PRO	265	2.707	45.534	25.580	1.00	33.01
	atom	2070	CG	PRO	265	3.642	46.515	26.202	1.00	33.60
	atom	2071	C	PRO	265	4.081	43.537	25.139	1.00	32.96
	atom	2072	O	PRO	265	5.256	43.886	25.027	1.00	33.11
25	atom	2073	N	LEU	266	3.547	42.619	24.349	1.00	33.29
	atom	2074	CA	LEU	266	4.311	41.895	23.346	1.00	33.29
	atom	2075	CB	LEU	266	4.057	40.395	23.522	1.00	33.54
	atom	2076	CG	LEU	266	4.269	39.807	24.921	1.00	32.13
	atom	2077	CD1	LEU	266	3.638	38.430	24.979	1.00	31.41
30	atom	2078	CD2	LEU	266	5.759	39.733	25.242	1.00	33.38
	atom	2079	C	LEU	266	3.853	42.264	21.952	1.00	34.40
	atom	2080	O	LEU	266	2.659	42.130	21.643	1.00	35.07
	atom	2081	N	THR	267	4.777	42.719	21.114	1.00	34.78
	atom	2082	CA	THR	267	4.342	43.062	19.766	1.00	36.07
35	atom	2083	CB	THR	267	4.241	44.564	19.469	1.00	36.12
	atom	2084	OG1	THR	267	4.959	44.906	18.277	1.00	35.59

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5	atom	2085	CG2	THR	267	4.650	45.435	20.613	1.00	32.67
	atom	2086	C	THR	267	5.109	42.293	18.709	1.00	37.27
	atom	2087	O	THR	267	6.330	42.155	18.713	1.00	38.24
	atom	2088	N	ASN	268	4.320	41.740	17.785	1.00	38.02
	atom	2089	CA	ASN	268	4.891	40.942	16.702	1.00	39.40
	atom	2090	CB	ASN	268	3.790	40.179	15.999	1.00	39.87
	atom	2091	CG	ASN	268	2.826	40.976	15.152	1.00	40.65
	atom	2092	OD1	ASN	268	3.106	42.024	14.576	1.00	39.40
10	atom	2093	ND2	ASN	268	1.614	40.436	15.059	1.00	41.34
	atom	2094	C	ASN	268	5.736	41.848	15.808	1.00	40.00
	atom	2095	O	ASN	268	5.851	43.051	16.075	1.00	39.86
	atom	2096	N	SER	269	6.346	41.304	14.769	1.00	40.67
	atom	2097	CA	SER	269	7.219	42.057	13.889	1.00	43.88
	atom	2098	CB	SER	269	8.225	41.111	13.224	1.00	44.83
	atom	2099	OG	SER	269	7.556	40.284	12.279	1.00	46.18
	atom	2100	C	SER	269	6.482	42.862	12.826	1.00	45.48
20	atom	2101	O	SER	269	7.101	43.545	12.006	1.00	45.80
	atom	2102	N	LYS	270	5.164	42.825	12.832	1.00	46.62
	atom	2103	CA	LYS	270	4.275	43.553	11.955	1.00	47.63
	atom	2104	CB	LYS	270	3.269	42.568	11.329	1.00	48.50
	atom	2105	CG	LYS	270	3.794	41.913	10.065	1.00	51.67
	atom	2106	CD	LYS	270	3.375	40.471	9.896	1.00	52.63
	atom	2107	CE	LYS	270	1.892	40.267	9.678	1.00	54.43
	atom	2108	NZ	LYS	270	1.534	40.002	8.258	1.00	53.62
25	atom	2109	C	LYS	270	3.527	44.630	12.734	1.00	47.68
	atom	2110	O	LYS	270	2.400	45.014	12.403	1.00	48.57
	atom	2111	N	GLY	271	4.070	45.028	13.881	1.00	47.00
	atom	2112	CA	GLY	271	3.510	46.022	14.765	1.00	45.87
	atom	2113	C	GLY	271	2.224	45.678	15.479	1.00	46.02
	atom	2114	O	GLY	271	1.668	46.591	16.117	1.00	45.92
	atom	2115	N	GLN	272	1.754	44.433	15.447	1.00	45.68
	atom	2116	CA	GLN	272	0.489	44.086	16.095	1.00	45.76
30	atom	2117	CB	GLN	272	-0.246	42.977	15.340	1.00	48.38
	atom	2118	CG	GLN	272	-0.310	43.141	13.829	1.00	51.71
	atom	2119	CD	GLN	272	-0.808	41.907	13.112	1.00	54.09
	atom	2120	OE1	GLN	272	-1.552	41.949	12.129	1.00	56.77

	atom	2121	NE2	GLN	272	-0.414	40.733	13.583	1.00	54.72
	atom	2122	C	GLN	272	0.713	43.649	17.536	1.00	45.50
	atom	2123	O	GLN	272	1.727	43.020	17.852	1.00	46.01
	atom	2124	N	ASN	273	-0.223	44.005	18.405	1.00	44.29
5	atom	2125	CA	ASN	273	-0.160	43.660	19.821	1.00	42.07
	atom	2126	CB	ASN	273	-1.085	44.526	20.667	1.00	39.00
	atom	2127	CG	ASN	273	-1.181	44.115	22.115	1.00	41.00
	atom	2128	OD1	ASN	273	-0.194	43.855	22.813	1.00	41.85
	atom	2129	ND2	ASN	273	-2.390	44.007	22.673	1.00	41.63
10	atom	2130	C	ASN	273	-0.551	42.191	19.946	1.00	41.69
	atom	2131	O	ASN	273	-1.687	41.893	19.629	1.00	41.80
	atom	2132	N	CYS	274	0.332	41.328	20.394	1.00	41.16
	atom	2133	CA	CYS	274	0.147	39.906	20.522	1.00	39.88
	atom	2134	CB	CYS	274	1.471	39.169	20.213	1.00	41.22
15	atom	2135	SG	CYS	274	1.747	38.854	18.474	1.00	43.94
	atom	2136	C	CYS	274	-0.232	39.438	21.918	1.00	39.19
	atom	2137	O	CYS	274	-0.750	38.327	22.061	1.00	38.19
	atom	2138	N	GLY	275	0.001	40.257	22.933	1.00	39.14
	atom	2139	CA	GLY	275	-0.341	39.838	24.292	1.00	38.47
20	atom	2140	C	GLY	275	0.493	40.598	25.319	1.00	38.10
	atom	2141	O	GLY	275	1.158	41.572	25.015	1.00	36.94
	atom	2142	N	TYR	276	0.433	40.120	26.547	1.00	38.05
	atom	2143	CA	TYR	276	1.088	40.679	27.701	1.00	37.33
	atom	2144	CB	TYR	276	0.012	41.280	28.623	1.00	38.53
25	atom	2145	CG	TYR	276	0.548	42.451	29.412	1.00	42.07
	atom	2146	CD1	TYR	276	0.509	43.741	28.895	1.00	43.14
	atom	2147	CE1	TYR	276	1.023	44.808	29.622	1.00	43.93
	atom	2148	CD2	TYR	276	1.129	42.250	30.665	1.00	43.11
	atom	2149	CE2	TYR	276	1.637	43.307	31.398	1.00	43.61
30	atom	2150	CZ	TYR	276	1.578	44.577	30.865	1.00	44.68
	atom	2151	OH	TYR	276	2.082	45.644	31.570	1.00	47.15
	atom	2152	C	TYR	276	1.898	39.613	28.436	1.00	36.60
	atom	2153	O	TYR	276	1.436	38.487	28.646	1.00	36.76
	atom	2154	N	ARG	277	3.109	39.961	28.849	1.00	34.71
35	atom	2155	CA	ARG	277	4.015	39.051	29.536	1.00	33.18
	atom	2156	CB	ARG	277	5.447	39.141	28.989	1.00	29.40

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5	atom	2157	CG	ARG	277	6.554	38.573	29.860	1.00	29.31
	atom	2158	CD	ARG	277	7.954	38.735	29.271	1.00	29.38
	atom	2159	NE	ARG	277	8.204	40.155	28.967	1.00	27.72
	atom	2160	CZ	ARG	277	8.675	40.999	29.882	1.00	24.92
	atom	2161	NH1	ARG	277	9.039	40.597	31.097	1.00	22.62
	atom	2162	NH2	ARG	277	8.834	42.268	29.549	1.00	26.44
	atom	2163	C	ARG	277	4.030	39.365	31.031	1.00	33.09
	atom	2164	O	ARG	277	4.083	40.541	31.380	1.00	32.34
10	atom	2165	N	ARG	278	3.976	38.342	31.876	1.00	32.37
	atom	2166	CA	ARG	278	4.048	38.501	33.317	1.00	32.25
	atom	2167	CB	ARG	278	2.733	38.255	34.068	1.00	33.09
	atom	2168	CG	ARG	278	1.715	39.350	33.888	1.00	34.92
	atom	2169	CD	ARG	278	0.372	39.132	34.589	1.00	36.40
15	atom	2170	NE	ARG	278	-0.646	39.860	33.802	1.00	36.37
	atom	2171	CZ	ARG	278	-1.313	39.255	32.812	1.00	35.81
	atom	2172	NH1	ARG	278	-1.123	37.971	32.536	1.00	32.19
	atom	2173	NH2	ARG	278	-2.180	39.986	32.124	1.00	34.43
20	atom	2174	C	ARG	278	5.146	37.581	33.869	1.00	30.67
	atom	2175	O	ARG	278	5.124	37.144	35.018	1.00	30.60
	atom	2176	N	CYS	279	6.121	37.277	33.028	1.00	28.97
	atom	2177	CA	CYS	279	7.233	36.420	33.482	1.00	27.80
	atom	2178	CB	CYS	279	6.975	34.974	33.085	1.00	24.67
	atom	2179	SG	CYS	279	6.905	34.774	31.288	1.00	24.12
	atom	2180	C	CYS	279	8.540	36.965	32.915	1.00	27.03
	atom	2181	O	CYS	279	8.613	38.113	32.467	1.00	25.75
25	atom	2182	N	ARG	280	9.586	36.152	32.890	1.00	27.11
	atom	2183	CA	ARG	280	10.882	36.608	32.411	1.00	27.61
	atom	2184	CB	ARG	280	11.973	35.642	32.874	1.00	27.41
	atom	2185	CG	ARG	280	13.309	35.826	32.157	1.00	28.28
	atom	2186	CD	ARG	280	14.430	35.788	33.204	1.00	27.54
30	atom	2187	NE	ARG	280	14.341	36.959	34.041	1.00	26.48
	atom	2188	CZ	ARG	280	14.626	36.967	35.342	1.00	26.75
	atom	2189	NH1	ARG	280	15.010	35.869	35.942	1.00	23.17
	atom	2190	NH2	ARG	280	14.514	38.112	36.010	1.00	25.26
35	atom	2191	C	ARG	280	10.990	36.731	30.895	1.00	28.06
	atom	2192	O	ARG	280	10.664	35.733	30.245	1.00	28.91

	atom	2193	N	ALA	281	11.497	37.862	30.412	1.00	26.87
	atom	2194	CA	ALA	281	11.723	38.001	28.979	1.00	27.69
	atom	2195	CB	ALA	281	11.878	39.445	28.520	1.00	29.87
	atom	2196	C	ALA	281	13.052	37.311	28.674	1.00	27.81
5	atom	2197	O	ALA	281	14.015	37.544	29.447	1.00	28.27
	atom	2198	N	SER	282	13.127	36.562	27.581	1.00	26.40
	atom	2199	CA	SER	282	14.412	35.903	27.302	1.00	26.12
	atom	2200	CB	SER	282	14.267	34.916	26.133	1.00	24.24
	atom	2201	OG	SER	282	14.011	35.718	24.963	1.00	26.18
10	atom	2202	C	SER	282	15.497	36.884	26.885	1.00	26.32
	atom	2203	O	SER	282	16.673	36.555	27.037	1.00	26.86
	atom	2204	N	GLY	283	15.158	38.020	26.269	1.00	26.21
	atom	2205	CA	GLY	283	16.121	38.931	25.717	1.00	24.50
	atom	2206	C	GLY	283	16.592	40.124	26.493	1.00	24.78
15	atom	2207	O	GLY	283	17.092	41.075	25.860	1.00	24.42
	atom	2208	N	VAL	284	16.469	40.153	27.821	1.00	23.56
	atom	2209	CA	VAL	284	16.972	41.302	28.563	1.00	23.33
	atom	2210	CB	VAL	284	16.024	41.743	29.690	1.00	22.69
	atom	2211	CG1	VAL	284	14.793	42.445	29.124	1.00	22.71
20	atom	2212	CG2	VAL	284	15.627	40.552	30.570	1.00	20.58
	atom	2213	C	VAL	284	18.364	41.045	29.122	1.00	24.38
	atom	2214	O	VAL	284	18.764	39.929	29.432	1.00	23.07
	atom	2215	N	LEU	285	19.104	42.126	29.437	1.00	25.00
	atom	2216	CA	LEU	285	20.432	41.988	29.991	1.00	24.61
25	atom	2217	CB	LEU	285	21.046	43.364	30.352	1.00	24.12
	atom	2218	CG	LEU	285	22.516	43.262	30.826	1.00	24.45
	atom	2219	CD1	LEU	285	23.371	42.600	29.745	1.00	17.79
	atom	2220	CD2	LEU	285	23.104	44.611	31.224	1.00	22.93
	atom	2221	C	LEU	285	20.497	41.091	31.221	1.00	25.33
30	atom	2222	O	LEU	285	21.516	40.423	31.420	1.00	24.18
	atom	2223	N	THR	286	19.496	41.148	32.099	1.00	25.22
	atom	2224	CA	THR	286	19.455	40.392	33.324	1.00	25.36
	atom	2225	CB	THR	286	18.600	41.148	34.381	1.00	26.54
	atom	2226	OG1	THR	286	17.319	41.448	33.805	1.00	25.36
35	atom	2227	CG2	THR	286	19.284	42.427	34.818	1.00	26.79
	atom	2228	C	THR	286	18.864	38.996	33.247	1.00	25.62

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	atom	2229	O	THR	286	18.786	38.333	34.300	1.00	25.94
	atom	2230	N	THR	287	18.455	38.476	32.096	1.00	25.49
	atom	2231	CA	THR	287	17.918	37.120	32.066	1.00	25.72
	atom	2232	CB	THR	287	17.702	36.664	30.606	1.00	26.65
5	atom	2233	OG1	THR	287	16.939	37.679	29.953	1.00	25.87
	atom	2234	CG2	THR	287	17.038	35.298	30.609	1.00	25.07
	atom	2235	C	THR	287	18.851	36.098	32.711	1.00	26.17
	atom	2236	O	THR	287	18.484	35.245	33.527	1.00	26.55
	atom	2237	N	SER	288	20.109	36.143	32.284	1.00	25.33
10	atom	2238	CA	SER	288	21.108	35.184	32.711	1.00	24.77
	atom	2239	CB	SER	288	22.316	35.321	31.782	1.00	25.26
	atom	2240	OG	SER	288	23.383	34.559	32.293	1.00	30.68
	atom	2241	C	SER	288	21.430	35.323	34.184	1.00	24.87
	atom	2242	O	SER	288	21.342	34.343	34.920	1.00	24.52
15	atom	2243	N	CYS	289	21.774	36.524	34.653	1.00	24.19
	atom	2244	CA	CYS	289	22.085	36.744	36.056	1.00	22.89
	atom	2245	CB	CYS	289	22.600	38.157	36.270	1.00	21.13
	atom	2246	SG	CYS	289	22.956	38.605	38.001	1.00	23.20
	atom	2247	C	CYS	289	20.839	36.477	36.900	1.00	23.34
20	atom	2248	O	CYS	289	20.901	35.838	37.949	1.00	23.17
	atom	2249	N	GLY	290	19.686	37.000	36.476	1.00	23.20
	atom	2250	CA	GLY	290	18.438	36.804	37.206	1.00	23.05
	atom	2251	C	GLY	290	18.071	35.335	37.248	1.00	24.26
	atom	2252	O	GLY	290	17.768	34.801	38.325	1.00	26.03
25	atom	2253	N	ASN	291	18.094	34.616	36.125	1.00	24.82
	atom	2254	CA	ASN	291	17.785	33.177	36.184	1.00	26.10
	atom	2255	CB	ASN	291	17.742	32.502	34.811	1.00	24.06
	atom	2256	CG	ASN	291	16.564	32.975	33.985	1.00	26.25
	atom	2257	OD1	ASN	291	16.595	32.931	32.748	1.00	28.06
30	atom	2258	ND2	ASN	291	15.537	33.454	34.676	1.00	23.50
	atom	2259	C	ASN	291	18.788	32.470	37.092	1.00	26.11
	atom	2260	O	ASN	291	18.446	31.546	37.836	1.00	26.06
	atom	2261	N	THR	292	20.053	32.879	37.060	1.00	26.77
	atom	2262	CA	THR	292	21.067	32.258	37.901	1.00	28.20
35	atom	2263	CB	THR	292	22.491	32.695	37.505	1.00	28.50
	atom	2264	OG1	THR	292	22.657	32.218	36.155	1.00	31.29

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	atom	2265	CG2	THR	292	23.544	32.068	38.395	1.00	26.89
	atom	2266	C	THR	292	20.793	32.494	39.378	1.00	27.77
	atom	2267	O	THR	292	20.813	31.513	40.130	1.00	29.08
	atom	2268	N	LEU	293	20.475	33.704	39.789	1.00	27.43
5	atom	2269	CA	LEU	293	20.127	33.956	41.180	1.00	27.75
	atom	2270	CB	LEU	293	19.938	35.465	41.391	1.00	28.04
	atom	2271	CG	LEU	293	21.213	36.289	41.179	1.00	26.98
	atom	2272	CD1	LEU	293	20.886	37.773	41.254	1.00	27.35
	atom	2273	CD2	LEU	293	22.225	35.868	42.236	1.00	27.96
10	atom	2274	C	LEU	293	18.858	33.247	41.620	1.00	27.75
	atom	2275	O	LEU	293	18.794	32.681	42.712	1.00	27.79
	atom	2276	N	THR	294	17.841	33.257	40.772	1.00	28.44
	atom	2277	CA	THR	294	16.553	32.641	41.140	1.00	29.61
	atom	2278	CB	THR	294	15.525	33.085	40.083	1.00	30.26
15	atom	2279	OG1	THR	294	15.574	34.524	40.200	1.00	31.67
	atom	2280	CG2	THR	294	14.133	32.542	40.321	1.00	28.70
	atom	2281	C	THR	294	16.635	31.132	41.271	1.00	28.50
	atom	2282	O	THR	294	16.126	30.522	42.212	1.00	27.94
	atom	2283	N	CYS	295	17.322	30.528	40.316	1.00	27.44
20	atom	2284	CA	CYS	295	17.494	29.084	40.307	1.00	28.31
	atom	2285	CB	CYS	295	18.238	28.644	39.046	1.00	24.99
	atom	2286	SG	CYS	295	18.381	26.845	38.982	1.00	26.71
	atom	2287	C	CYS	295	18.248	28.651	41.565	1.00	29.14
	atom	2288	O	CYS	295	17.820	27.781	42.318	1.00	28.71
25	atom	2289	N	TYR	296	19.364	29.334	41.819	1.00	29.50
	atom	2290	CA	TYR	296	20.189	29.101	42.989	1.00	30.30
	atom	2291	CB	TYR	296	21.337	30.127	42.985	1.00	28.86
	atom	2292	CG	TYR	296	22.187	30.070	44.234	1.00	27.72
	atom	2293	CD1	TYR	296	23.291	29.220	44.310	1.00	27.11
30	atom	2294	CE1	TYR	296	24.060	29.188	45.446	1.00	26.95
	atom	2295	CD2	TYR	296	21.877	30.851	45.335	1.00	27.45
	atom	2296	CE2	TYR	296	22.632	30.805	46.497	1.00	27.35
	atom	2297	CZ	TYR	296	23.737	29.982	46.534	1.00	27.89
	atom	2298	OH	TYR	296	24.519	29.919	47.667	1.00	27.59
35	atom	2299	C	TYR	296	19.407	29.232	44.295	1.00	30.73
	atom	2300	O	TYR	296	19.509	28.404	45.202	1.00	31.40

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5	atom	2301	N	LEU	297	18.679	30.338	44.442	1.00	31.05
	atom	2302	CA	LEU	297	17.901	30.596	45.639	1.00	31.15
	atom	2303	CB	LEU	297	17.242	31.976	45.577	1.00	30.66
	atom	2304	CG	LEU	297	16.195	32.284	46.649	1.00	32.49
	atom	2305	CD1	LEU	297	16.752	32.354	48.068	1.00	30.72
	atom	2306	CD2	LEU	297	15.501	33.588	46.284	1.00	33.88
	atom	2307	C	LEU	297	16.900	29.468	45.907	1.00	30.59
10	atom	2308	O	LEU	297	16.913	28.924	47.009	1.00	28.99
	atom	2309	N	LYS	298	16.121	29.057	44.920	1.00	30.38
	atom	2310	CA	LYS	298	15.134	28.007	45.066	1.00	30.73
	atom	2311	CB	LYS	298	14.187	27.913	43.853	1.00	26.40
	atom	2312	CG	LYS	298	13.421	29.212	43.648	1.00	27.14
	atom	2313	CD	LYS	298	12.557	29.198	42.381	1.00	23.22
	atom	2314	CE	LYS	298	11.618	30.402	42.435	1.00	22.06
15	atom	2315	NZ	LYS	298	10.863	30.571	41.164	1.00	23.44
	atom	2316	C	LYS	298	15.747	26.629	45.273	1.00	31.80
	atom	2317	O	LYS	298	15.278	25.919	46.166	1.00	31.91
	atom	2318	N	ALA	299	16.764	26.292	44.489	1.00	31.31
	atom	2319	CA	ALA	299	17.417	24.996	44.613	1.00	32.02
	atom	2320	CB	ALA	299	18.404	24.791	43.477	1.00	28.54
	atom	2321	C	ALA	299	18.101	24.838	45.969	1.00	32.66
20	atom	2322	O	ALA	299	18.107	23.748	46.563	1.00	33.07
	atom	2323	N	SER	300	18.691	25.926	46.458	1.00	32.43
	atom	2324	CA	SER	300	19.321	25.944	47.767	1.00	33.37
	atom	2325	CB	SER	300	19.965	27.286	48.129	1.00	34.48
	atom	2326	OG	SER	300	21.213	27.475	47.523	1.00	37.45
	atom	2327	C	SER	300	18.278	25.709	48.866	1.00	32.74
	atom	2328	O	SER	300	18.551	24.955	49.802	1.00	32.46
30	atom	2329	N	ALA	301	17.131	26.381	48.752	1.00	31.85
	atom	2330	CA	ALA	301	16.079	26.214	49.756	1.00	32.50
	atom	2331	CB	ALA	301	14.900	27.149	49.558	1.00	28.76
	atom	2332	C	ALA	301	15.558	24.774	49.720	1.00	32.40
	atom	2333	O	ALA	301	15.285	24.154	50.733	1.00	33.61
	atom	2334	N	ALA	302	15.460	24.234	48.528	1.00	32.04
	atom	2335	CA	ALA	302	15.022	22.904	48.208	1.00	31.76
35	atom	2336	CB	ALA	302	14.835	22.770	46.701	1.00	28.84

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	atom	2337	C	ALA	302	16.008	21.873	48.733	1.00	32.29
	atom	2338	O	ALA	302	15.536	20.875	49.272	1.00	32.46
	atom	2339	N	CYS	303	17.319	22.109	48.646	1.00	32.27
	atom	2340	CA	CYS	303	18.282	21.164	49.188	1.00	32.46
5	atom	2341	CB	CYS	303	19.740	21.460	48.912	1.00	28.56
	atom	2342	SG	CYS	303	20.386	21.344	47.218	1.00	28.88
	atom	2343	C	CYS	303	18.047	21.084	50.705	1.00	34.28
	atom	2344	O	CYS	303	18.061	19.976	51.246	1.00	34.99
	atom	2345	N	ARG	304	17.769	22.207	51.369	1.00	34.95
10	atom	2346	CA	ARG	304	17.520	22.205	52.801	1.00	36.53
	atom	2347	CB	ARG	304	17.402	23.603	53.397	1.00	38.88
	atom	2348	CG	ARG	304	18.344	24.620	52.810	1.00	41.44
	atom	2349	CD	ARG	304	19.554	25.040	53.582	1.00	41.06
	atom	2350	NE	ARG	304	19.349	26.338	54.195	1.00	45.30
15	atom	2351	CZ	ARG	304	20.120	27.415	54.257	1.00	44.75
	atom	2352	NH1	ARG	304	21.316	27.567	53.713	1.00	43.50
	atom	2353	NH2	ARG	304	19.670	28.490	54.907	1.00	44.32
	atom	2354	C	ARG	304	16.233	21.423	53.098	1.00	37.68
	atom	2355	O	ARG	304	16.233	20.610	54.031	1.00	37.15
20	atom	2356	N	ALA	305	15.208	21.640	52.274	1.00	36.72
	atom	2357	CA	ALA	305	13.959	20.919	52.419	1.00	37.33
	atom	2358	CB	ALA	305	12.906	21.441	51.441	1.00	33.97
	atom	2359	C	ALA	305	14.100	19.417	52.180	1.00	37.93
	atom	2360	O	ALA	305	13.467	18.664	52.917	1.00	37.71
25	atom	2361	N	ALA	306	14.896	18.988	51.205	1.00	37.98
	atom	2362	CA	ALA	306	15.052	17.584	50.874	1.00	38.67
	atom	2363	CB	ALA	306	15.514	17.448	49.427	1.00	36.26
	atom	2364	C	ALA	306	16.003	16.877	51.830	1.00	39.76
	atom	2365	O	ALA	306	16.151	15.649	51.842	1.00	40.58
30	atom	2366	N	LYS	307	16.746	17.629	52.626	1.00	40.63
	atom	2367	CA	LYS	307	17.689	17.077	53.582	1.00	41.94
	atom	2368	CB	LYS	307	16.997	16.055	54.482	1.00	40.64
	atom	2369	CG	LYS	307	16.487	16.494	55.819	1.00	42.35
	atom	2370	CD	LYS	307	15.056	16.995	55.852	1.00	46.63
35	atom	2371	CE	LYS	307	14.306	16.521	57.096	1.00	45.86
	atom	2372	NZ	LYS	307	15.169	16.642	58.311	1.00	48.23

5	atom	2373	C	LYS	307	18.904	16.455	52.906	1.00	42.62
	atom	2374	O	LYS	307	19.502	15.501	53.418	1.00	42.87
	atom	2375	N	LEU	308	19.285	16.982	51.743	1.00	43.44
	atom	2376	CA	LEU	308	20.479	16.488	51.052	1.00	42.60
	atom	2377	CB	LEU	308	20.587	17.030	49.632	1.00	43.54
	atom	2378	CG	LEU	308	19.390	16.745	48.721	1.00	42.91
	atom	2379	CD1	LEU	308	19.542	17.379	47.354	1.00	42.51
	atom	2380	CD2	LEU	308	19.196	15.244	48.592	1.00	44.10
10	atom	2381	C	LEU	308	21.679	16.884	51.912	1.00	42.07
	atom	2382	O	LEU	308	21.675	17.877	52.645	1.00	41.60
	atom	2383	N	GLN	309	22.716	16.071	51.846	1.00	40.83
	atom	2384	CA	GLN	309	23.890	16.235	52.676	1.00	41.21
15	atom	2385	CB	GLN	309	24.059	15.006	53.568	1.00	43.78
	atom	2386	CG	GLN	309	23.843	13.649	52.946	1.00	49.41
	atom	2387	CD	GLN	309	22.445	13.366	52.410	1.00	52.42
	atom	2388	OE1	GLN	309	22.248	13.146	51.199	1.00	50.59
	atom	2389	NE2	GLN	309	21.464	13.441	53.314	1.00	52.95
	atom	2390	C	GLN	309	25.170	16.525	51.906	1.00	41.00
	atom	2391	O	GLN	309	25.500	15.958	50.857	1.00	39.77
	atom	2392	N	ASP	310	25.890	17.514	52.459	1.00	40.51
20	atom	2393	CA	ASP	310	27.156	17.937	51.857	1.00	41.23
	atom	2394	CB	ASP	310	28.147	16.784	51.985	1.00	44.63
	atom	2395	CG	ASP	310	29.599	17.169	51.899	1.00	48.67
	atom	2396	OD1	ASP	310	30.490	16.278	51.966	1.00	53.08
25	atom	2397	OD2	ASP	310	29.863	18.377	51.765	1.00	49.31
	atom	2398	C	ASP	310	26.914	18.349	50.406	1.00	40.11
	atom	2399	O	ASP	310	27.638	17.954	49.498	1.00	40.33
30	atom	2400	N	CYS	311	25.878	19.132	50.169	1.00	38.97
	atom	2401	CA	CYS	311	25.486	19.625	48.880	1.00	38.92
	atom	2402	CB	CYS	311	24.175	20.433	48.939	1.00	40.68
	atom	2403	SG	CYS	311	22.675	19.479	48.803	1.00	43.39
	atom	2404	C	CYS	311	26.470	20.632	48.278	1.00	37.89
	atom	2405	O	CYS	311	26.947	21.574	48.906	1.00	38.01
	atom	2406	N	THR	312	26.696	20.444	46.996	1.00	36.23
	atom	2407	CA	THR	312	27.512	21.358	46.203	1.00	34.41
35	atom	2408	CB	THR	312	28.885	20.764	45.922	1.00	34.03

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	atom	2409	OG1	THR	312	29.444	20.309	47.160	1.00	34.43
	atom	2410	CG2	THR	312	29.779	21.834	45.320	1.00	34.60
	atom	2411	C	THR	312	26.738	21.635	44.918	1.00	33.28
	atom	2412	O	THR	312	26.373	20.706	44.199	1.00	32.18
5	atom	2413	N	MET	313	26.393	22.888	44.698	1.00	33.09
	atom	2414	CA	MET	313	25.620	23.231	43.516	1.00	33.28
	atom	2415	CB	MET	313	24.481	24.186	43.882	1.00	35.73
	atom	2416	CG	MET	313	23.586	23.596	44.971	1.00	38.44
	atom	2417	SD	MET	313	21.940	24.278	44.982	1.00	40.96
10	atom	2418	CE	MET	313	22.192	26.003	44.619	1.00	38.76
	atom	2419	C	MET	313	26.457	23.903	42.443	1.00	32.45
	atom	2420	O	MET	313	27.323	24.694	42.775	1.00	33.24
	atom	2421	N	LEU	314	26.160	23.604	41.193	1.00	31.30
	atom	2422	CA	LEU	314	26.763	24.272	40.065	1.00	30.25
15	atom	2423	CB	LEU	314	27.567	23.377	39.109	1.00	29.01
	atom	2424	CG	LEU	314	28.303	24.207	38.034	1.00	26.14
	atom	2425	CD1	LEU	314	29.179	25.271	38.688	1.00	21.68
	atom	2426	CD2	LEU	314	29.111	23.325	37.105	1.00	24.63
	atom	2427	C	LEU	314	25.617	24.907	39.271	1.00	29.08
20	atom	2428	O	LEU	314	24.819	24.131	38.742	1.00	29.26
	atom	2429	N	VAL	315	25.511	26.224	39.245	1.00	29.16
	atom	2430	CA	VAL	315	24.402	26.874	38.546	1.00	29.03
	atom	2431	CB	VAL	315	23.578	27.763	39.497	1.00	27.72
	atom	2432	CG1	VAL	315	22.330	28.276	38.788	1.00	25.33
25	atom	2433	CG2	VAL	315	23.219	27.070	40.809	1.00	27.07
	atom	2434	C	VAL	315	24.829	27.788	37.400	1.00	29.94
	atom	2435	O	VAL	315	25.690	28.651	37.549	1.00	30.61
	atom	2436	N	ASN	316	24.215	27.624	36.246	1.00	29.96
	atom	2437	CA	ASN	316	24.387	28.422	35.046	1.00	31.16
30	atom	2438	CB	ASN	316	25.104	27.686	33.920	1.00	32.98
	atom	2439	CG	ASN	316	26.588	27.417	34.065	1.00	35.77
	atom	2440	OD1	ASN	316	26.956	26.417	34.688	1.00	36.41
	atom	2441	ND2	ASN	316	27.454	28.255	33.497	1.00	34.65
	atom	2442	C	ASN	316	22.980	28.794	34.549	1.00	31.23
35	atom	2443	O	ASN	316	22.308	27.973	33.919	1.00	29.54
	atom	2444	N	GLY	317	22.436	29.975	34.812	1.00	31.75

	atom	2445	CA	GLY	317	21.076	30.292	34.354	1.00	32.75
	atom	2446	C	GLY	317	20.012	29.356	34.917	1.00	33.30
	atom	2447	O	GLY	317	19.891	29.208	36.129	1.00	32.73
	atom	2448	N	ASP	318	19.219	28.664	34.125	1.00	33.63
5	atom	2449	CA	ASP	318	18.220	27.713	34.553	1.00	35.29
	atom	2450	CB	ASP	318	17.121	27.609	33.494	1.00	39.36
	atom	2451	CG	ASP	318	17.662	27.394	32.101	1.00	43.35
	atom	2452	OD1	ASP	318	17.068	26.586	31.347	1.00	47.58
	atom	2453	OD2	ASP	318	18.671	28.032	31.708	1.00	45.20
10	atom	2454	C	ASP	318	18.832	26.327	34.744	1.00	35.84
	atom	2455	O	ASP	318	18.164	25.391	35.176	1.00	36.69
	atom	2456	N	ASP	319	20.090	26.186	34.354	1.00	35.25
	atom	2457	CA	ASP	319	20.804	24.929	34.416	1.00	35.84
	atom	2458	CB	ASP	319	22.011	25.025	33.470	1.00	39.39
15	atom	2459	CG	ASP	319	21.910	23.880	32.479	1.00	44.23
	atom	2460	OD1	ASP	319	21.236	24.045	31.440	1.00	48.80
	atom	2461	OD2	ASP	319	22.508	22.844	32.816	1.00	45.23
	atom	2462	C	ASP	319	21.288	24.628	35.829	1.00	34.61
	atom	2463	O	ASP	319	22.041	25.446	36.361	1.00	34.77
20	atom	2464	N	LEU	320	20.887	23.491	36.372	1.00	32.49
	atom	2465	CA	LEU	320	21.271	23.154	37.731	1.00	32.39
	atom	2466	CB	LEU	320	20.061	23.318	38.651	1.00	30.55
	atom	2467	CG	LEU	320	20.187	22.939	40.123	1.00	30.70
	atom	2468	CD1	LEU	320	21.083	23.888	40.890	1.00	29.25
25	atom	2469	CD2	LEU	320	18.766	22.910	40.688	1.00	30.47
	atom	2470	C	LEU	320	21.796	21.733	37.893	1.00	32.52
	atom	2471	O	LEU	320	21.145	20.756	37.522	1.00	31.37
	atom	2472	N	VAL	321	22.971	21.662	38.522	1.00	32.62
	atom	2473	CA	VAL	321	23.588	20.393	38.858	1.00	32.63
30	atom	2474	CB	VAL	321	24.846	20.032	38.064	1.00	35.33
	atom	2475	CG1	VAL	321	25.731	19.046	38.839	1.00	34.44
	atom	2476	CG2	VAL	321	24.395	19.341	36.783	1.00	34.79
	atom	2477	C	VAL	321	23.887	20.397	40.359	1.00	32.34
	atom	2478	O	VAL	321	24.483	21.347	40.870	1.00	32.02
35	atom	2479	N	VAL	322	23.442	19.326	41.012	1.00	31.17
	atom	2480	CA	VAL	322	23.632	19.198	42.447	1.00	30.05

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5	atom	2481	CB	VAL	322	22.323	19.112	43.251	1.00	28.39
	atom	2482	CG1	VAL	322	22.631	18.851	44.725	1.00	30.18
	atom	2483	CG2	VAL	322	21.486	20.375	43.195	1.00	25.92
	atom	2484	C	VAL	322	24.450	17.942	42.719	1.00	29.97
	atom	2485	O	VAL	322	24.128	16.887	42.191	1.00	29.76
	atom	2486	N	ILE	323	25.515	18.060	43.502	1.00	30.71
	atom	2487	CA	ILE	323	26.321	16.878	43.816	1.00	31.46
	atom	2488	CB	ILE	323	27.721	16.883	43.212	1.00	29.74
10	atom	2489	CG2	ILE	323	28.563	15.803	43.903	1.00	28.57
	atom	2490	CG1	ILE	323	27.694	16.709	41.691	1.00	26.76
	atom	2491	CD1	ILE	323	28.974	17.151	41.015	1.00	28.40
	atom	2492	C	ILE	323	26.409	16.806	45.343	1.00	33.23
15	atom	2493	O	ILE	323	26.832	17.778	45.970	1.00	33.11
	atom	2494	N	CYS	324	26.033	15.654	45.885	1.00	33.75
	atom	2495	CA	CYS	324	26.029	15.494	47.328	1.00	34.16
	atom	2496	CB	CYS	324	24.599	15.744	47.817	1.00	32.60
	atom	2497	SG	CYS	324	23.415	14.482	47.250	1.00	28.37
	atom	2498	C	CYS	324	26.524	14.111	47.741	1.00	36.41
	atom	2499	O	CYS	324	26.940	13.265	46.946	1.00	35.85
	atom	2500	N	GLU	325	26.516	13.906	49.052	1.00	37.42
20	atom	2501	CA	GLU	325	26.935	12.689	49.735	1.00	38.45
	atom	2502	CB	GLU	325	27.378	13.104	51.145	1.00	41.19
	atom	2503	CG	GLU	325	28.247	12.197	51.960	1.00	40.10
	atom	2504	CD	GLU	325	29.560	11.853	51.298	1.00	42.45
25	atom	2505	OE1	GLU	325	30.584	12.515	51.560	1.00	45.65
	atom	2506	OE2	GLU	325	29.554	10.895	50.504	1.00	44.28
	atom	2507	C	GLU	325	25.743	11.750	49.817	1.00	38.20
	atom	2508	O	GLU	325	24.728	12.120	50.400	1.00	39.10
30	atom	2509	N	SER	326	25.789	10.606	49.173	1.00	38.71
	atom	2510	CA	SER	326	24.690	9.667	49.131	1.00	38.62
	atom	2511	CB	SER	326	25.021	8.424	48.306	1.00	37.19
	atom	2512	OG	SER	326	23.860	7.620	48.170	1.00	37.82
35	atom	2513	C	SER	326	24.292	9.230	50.541	1.00	39.32
	atom	2514	O	SER	326	25.128	9.110	51.426	1.00	38.70
	atom	2515	N	ALA	327	22.996	8.999	50.701	1.00	39.45
	atom	2516	CA	ALA	327	22.424	8.549	51.959	1.00	39.46

	atom	2517	CB	ALA	327	21.263	9.440	52.344	1.00	38.95
	atom	2518	C	ALA	327	21.921	7.120	51.773	1.00	40.13
	atom	2519	O	ALA	327	21.355	6.519	52.679	1.00	40.46
	atom	2520	N	GLY	328	22.130	6.608	50.565	1.00	39.86
5	atom	2521	CA	GLY	328	21.687	5.288	50.158	1.00	39.73
	atom	2522	C	GLY	328	20.754	5.448	48.950	1.00	40.89
	atom	2523	O	GLY	328	20.109	6.484	48.778	1.00	40.83
	atom	2524	N	THR	329	20.615	4.405	48.154	1.00	40.88
	atom	2525	CA	THR	329	19.776	4.443	46.971	1.00	41.92
10	atom	2526	CB	THR	329	19.832	3.088	46.238	1.00	43.44
	atom	2527	OG1	THR	329	21.147	3.013	45.646	1.00	46.46
	atom	2528	CG2	THR	329	18.824	2.999	45.115	1.00	43.47
	atom	2529	C	THR	329	18.349	4.857	47.237	1.00	41.88
	atom	2530	O	THR	329	17.850	5.766	46.567	1.00	42.54
15	atom	2531	N	GLN	330	17.668	4.219	48.179	1.00	42.20
	atom	2532	CA	GLN	330	16.274	4.530	48.478	1.00	41.29
	atom	2533	CB	GLN	330	15.612	3.457	49.346	1.00	46.59
	atom	2534	CG	GLN	330	15.603	2.067	48.754	1.00	50.81
	atom	2535	CD	GLN	330	14.819	2.023	47.461	1.00	56.28
20	atom	2536	OE1	GLN	330	13.984	2.886	47.166	1.00	58.61
	atom	2537	NE2	GLN	330	15.111	0.996	46.667	1.00	59.59
	atom	2538	C	GLN	330	16.144	5.879	49.163	1.00	39.83
	atom	2539	O	GLN	330	15.175	6.593	48.925	1.00	40.36
	atom	2540	N	GLU	331	17.094	6.216	50.011	1.00	38.55
25	atom	2541	CA	GLU	331	17.136	7.511	50.681	1.00	38.07
	atom	2542	CB	GLU	331	18.247	7.498	51.733	1.00	37.75
	atom	2543	CG	GLU	331	18.108	6.519	52.871	1.00	35.20
	atom	2544	CD	GLU	331	18.521	5.087	52.645	1.00	34.47
	atom	2545	OE1	GLU	331	18.818	4.660	51.518	1.00	33.00
30	atom	2546	OE2	GLU	331	18.557	4.294	53.623	1.00	33.15
	atom	2547	C	GLU	331	17.331	8.602	49.621	1.00	36.90
	atom	2548	O	GLU	331	16.606	9.591	49.558	1.00	36.16
	atom	2549	N	ASP	332	18.269	8.411	48.700	1.00	36.25
	atom	2550	CA	ASP	332	18.511	9.328	47.596	1.00	35.68
35	atom	2551	CB	ASP	332	19.642	8.808	46.697	1.00	33.77
	atom	2552	CG	ASP	332	21.012	8.836	47.343	1.00	34.50

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5	atom	2553	OD1	ASP	332	21.191	9.522	48.379	1.00	31.89
	atom	2554	OD2	ASP	332	21.928	8.145	46.848	1.00	33.11
	atom	2555	C	ASP	332	17.235	9.526	46.775	1.00	35.20
	atom	2556	O	ASP	332	16.823	10.661	46.510	1.00	35.26
	atom	2557	N	ALA	333	16.588	8.434	46.378	1.00	34.63
	atom	2558	CA	ALA	333	15.367	8.515	45.582	1.00	36.03
	atom	2559	CB	ALA	333	14.936	7.111	45.181	1.00	34.69
	atom	2560	C	ALA	333	14.248	9.283	46.272	1.00	36.20
10	atom	2561	O	ALA	333	13.614	10.155	45.656	1.00	36.27
	atom	2562	N	ALA	334	14.047	9.044	47.574	1.00	36.48
	atom	2563	CA	ALA	334	13.007	9.767	48.313	1.00	36.21
	atom	2564	CB	ALA	334	12.769	9.124	49.665	1.00	35.47
15	atom	2565	C	ALA	334	13.344	11.245	48.506	1.00	36.11
	atom	2566	O	ALA	334	12.467	12.118	48.559	1.00	35.78
	atom	2567	N	SER	335	14.630	11.547	48.631	1.00	35.28
	atom	2568	CA	SER	335	15.117	12.899	48.814	1.00	35.61
	atom	2569	CB	SER	335	16.596	12.850	49.211	1.00	38.47
	atom	2570	OG	SER	335	16.726	13.107	50.600	1.00	42.74
	atom	2571	C	SER	335	14.937	13.768	47.572	1.00	36.05
	atom	2572	O	SER	335	14.520	14.926	47.649	1.00	34.47
20	atom	2573	N	LEU	336	15.246	13.207	46.400	1.00	35.53
	atom	2574	CA	LEU	336	15.042	13.916	45.150	1.00	36.26
	atom	2575	CB	LEU	336	15.421	13.079	43.925	1.00	36.24
	atom	2576	CG	LEU	336	16.727	13.515	43.261	1.00	37.95
25	atom	2577	CD1	LEU	336	17.924	13.243	44.173	1.00	39.03
	atom	2578	CD2	LEU	336	16.899	12.795	41.936	1.00	37.53
	atom	2579	C	LEU	336	13.582	14.343	45.016	1.00	35.96
	atom	2580	O	LEU	336	13.308	15.512	44.763	1.00	35.19
30	atom	2581	N	ARG	337	12.655	13.419	45.244	1.00	36.14
	atom	2582	CA	ARG	337	11.231	13.738	45.195	1.00	35.70
	atom	2583	CB	ARG	337	10.353	12.506	45.416	1.00	36.11
	atom	2584	CG	ARG	337	10.335	11.545	44.232	1.00	38.83
35	atom	2585	CD	ARG	337	9.411	10.348	44.496	1.00	40.22
	atom	2586	NE	ARG	337	9.657	9.719	45.778	1.00	39.19
	atom	2587	CZ	ARG	337	10.236	8.561	46.047	1.00	41.14
	atom	2588	NH1	ARG	337	10.670	7.723	45.117	1.00	38.64

	atom	2589	NH2	ARG	337	10.400	8.144	47.307	1.00	43.71
	atom	2590	C	ARG	337	10.887	14.829	46.198	1.00	34.60
	atom	2591	O	ARG	337	10.107	15.732	45.877	1.00	35.46
	atom	2592	N	VAL	338	11.452	14.838	47.397	1.00	34.15
5	atom	2593	CA	VAL	338	11.180	15.955	48.314	1.00	33.78
	atom	2594	CB	VAL	338	11.681	15.698	49.732	1.00	33.92
	atom	2595	CG1	VAL	338	11.365	16.848	50.678	1.00	31.97
	atom	2596	CG2	VAL	338	11.052	14.401	50.233	1.00	33.85
	atom	2597	C	VAL	338	11.791	17.213	47.698	1.00	33.55
10	atom	2598	O	VAL	338	11.193	18.285	47.715	1.00	33.64
	atom	2599	N	PHE	339	12.948	17.082	47.056	1.00	33.81
	atom	2600	CA	PHE	339	13.608	18.198	46.402	1.00	34.27
	atom	2601	CB	PHE	339	14.955	17.728	45.841	1.00	31.31
	atom	2602	CG	PHE	339	15.639	18.809	45.047	1.00	29.80
15	atom	2603	CD1	PHE	339	16.553	19.637	45.684	1.00	30.25
	atom	2604	CD2	PHE	339	15.364	19.023	43.716	1.00	29.29
	atom	2605	CE1	PHE	339	17.205	20.631	45.004	1.00	30.41
	atom	2606	CE2	PHE	339	16.012	20.029	43.018	1.00	30.52
	atom	2607	CZ	PHE	339	16.931	20.823	43.655	1.00	30.30
20	atom	2608	C	PHE	339	12.740	18.862	45.335	1.00	34.83
	atom	2609	O	PHE	339	12.477	20.076	45.391	1.00	33.14
	atom	2610	N	THR	340	12.220	18.059	44.408	1.00	35.31
	atom	2611	CA	THR	340	11.360	18.570	43.344	1.00	37.57
	atom	2612	CB	THR	340	11.255	17.660	42.103	1.00	38.85
25	atom	2613	OG1	THR	340	9.909	17.437	41.637	1.00	38.26
	atom	2614	CG2	THR	340	11.938	16.324	42.280	1.00	35.09
	atom	2615	C	THR	340	10.014	19.020	43.881	1.00	38.40
	atom	2616	O	THR	340	9.352	19.802	43.205	1.00	38.54
	atom	2617	N	GLU	341	9.593	18.629	45.077	1.00	39.01
30	atom	2618	CA	GLU	341	8.361	19.125	45.669	1.00	39.93
	atom	2619	CB	GLU	341	7.922	18.312	46.896	1.00	42.66
	atom	2620	CG	GLU	341	7.425	16.933	46.523	1.00	48.20
	atom	2621	CD	GLU	341	7.187	15.937	47.634	1.00	51.03
	atom	2622	OE1	GLU	341	7.205	16.282	48.831	1.00	51.74
35	atom	2623	OE2	GLU	341	6.962	14.740	47.305	1.00	53.62
	atom	2624	C	GLU	341	8.548	20.582	46.107	1.00	38.80

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	atom	2625	O	GLU	341	7.714	21.441	45.837	1.00	38.70
	atom	2626	N	ALA	342	9.663	20.820	46.792	1.00	37.52
	atom	2627	CA	ALA	342	10.001	22.175	47.241	1.00	36.40
	atom	2628	CB	ALA	342	11.235	22.110	48.109	1.00	35.93
5	atom	2629	C	ALA	342	10.163	23.099	46.036	1.00	35.52
	atom	2630	O	ALA	342	9.445	24.092	45.932	1.00	33.62
	atom	2631	N	MET	343	10.956	22.712	45.027	1.00	34.92
	atom	2632	CA	MET	343	11.100	23.445	43.783	1.00	34.48
	atom	2633	CB	MET	343	11.931	22.681	42.741	1.00	31.80
10	atom	2634	CG	MET	343	13.398	22.455	43.088	1.00	28.42
	atom	2635	SD	MET	343	14.348	23.997	43.183	1.00	26.69
	atom	2636	CE	MET	343	14.467	24.378	41.437	1.00	24.16
	atom	2637	C	MET	343	9.727	23.752	43.170	1.00	35.63
	atom	2638	O	MET	343	9.442	24.854	42.670	1.00	34.00
15	atom	2639	N	THR	344	8.834	22.761	43.198	1.00	36.17
	atom	2640	CA	THR	344	7.490	22.934	42.641	1.00	37.75
	atom	2641	CB	THR	344	6.732	21.603	42.631	1.00	37.35
	atom	2642	OG1	THR	344	7.519	20.735	41.797	1.00	38.53
	atom	2643	CG2	THR	344	5.330	21.710	42.053	1.00	34.74
20	atom	2644	C	THR	344	6.700	24.017	43.356	1.00	38.54
	atom	2645	O	THR	344	6.152	24.898	42.705	1.00	38.85
	atom	2646	N	ARG	345	6.694	24.029	44.676	1.00	39.11
	atom	2647	CA	ARG	345	6.072	25.039	45.501	1.00	39.59
	atom	2648	CB	ARG	345	6.273	24.694	46.977	1.00	39.51
25	atom	2649	CG	ARG	345	5.159	23.832	47.550	1.00	42.47
	atom	2650	CD	ARG	345	5.363	23.823	49.068	1.00	46.19
	atom	2651	NE	ARG	345	6.342	22.780	49.363	1.00	50.63
	atom	2652	CZ	ARG	345	7.452	22.881	50.074	1.00	50.35
	atom	2653	NH1	ARG	345	7.827	24.033	50.604	1.00	51.38
30	atom	2654	NH2	ARG	345	8.186	21.786	50.220	1.00	48.48
	atom	2655	C	ARG	345	6.659	26.423	45.276	1.00	40.17
	atom	2656	O	ARG	345	5.948	27.408	45.413	1.00	41.43
	atom	2657	N	TYR	346	7.935	26.527	44.923	1.00	40.18
	atom	2658	CA	TYR	346	8.608	27.764	44.619	1.00	40.02
35	atom	2659	CB	TYR	346	10.124	27.644	44.814	1.00	39.12
	atom	2660	CG	TYR	346	10.568	27.177	46.183	1.00	37.04

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5	atom	2661	CD1	TYR	346	9.831	27.488	47.321	1.00	36.26
	atom	2662	CE1	TYR	346	10.240	27.060	48.577	1.00	35.81
	atom	2663	CD2	TYR	346	11.736	26.447	46.334	1.00	35.04
	atom	2664	CE2	TYR	346	12.162	26.036	47.580	1.00	35.36
	atom	2665	CZ	TYR	346	11.409	26.344	48.696	1.00	35.53
	atom	2666	OH	TYR	346	11.815	25.932	49.937	1.00	35.54
	atom	2667	C	TYR	346	8.362	28.173	43.169	1.00	40.48
	atom	2668	O	TYR	346	8.908	29.176	42.726	1.00	40.30
10	atom	2669	N	SER	347	7.579	27.403	42.432	1.00	41.56
	atom	2670	CA	SER	347	7.271	27.689	41.051	1.00	44.25
	atom	2671	CB	SER	347	6.772	29.135	40.903	1.00	45.32
	atom	2672	OG	SER	347	6.488	29.393	39.541	1.00	48.51
	atom	2673	C	SER	347	8.453	27.445	40.121	1.00	45.42
15	atom	2674	O	SER	347	8.879	28.322	39.357	1.00	46.85
	atom	2675	N	ALA	348	9.004	26.239	40.177	1.00	45.07
	atom	2676	CA	ALA	348	10.071	25.794	39.286	1.00	45.01
	atom	2677	CB	ALA	348	11.469	26.117	39.758	1.00	44.64
	atom	2678	C	ALA	348	9.879	24.277	39.147	1.00	44.89
20	atom	2679	O	ALA	348	10.647	23.487	39.687	1.00	43.73
	atom	2680	N	PRO	349	8.775	23.906	38.510	1.00	44.97
	atom	2681	CD	PRO	349	7.810	24.804	37.838	1.00	45.37
	atom	2682	CA	PRO	349	8.402	22.504	38.335	1.00	45.30
	atom	2683	CB	PRO	349	6.905	22.579	38.056	1.00	45.30
25	atom	2684	CG	PRO	349	6.685	23.905	37.417	1.00	45.43
	atom	2685	C	PRO	349	9.192	21.814	37.245	1.00	44.52
	atom	2686	O	PRO	349	9.657	22.464	36.309	1.00	45.00
	atom	2687	N	PRO	350	9.414	20.515	37.367	1.00	44.56
	atom	2688	CD	PRO	350	8.907	19.686	38.485	1.00	44.84
30	atom	2689	CA	PRO	350	10.191	19.753	36.421	1.00	44.98
	atom	2690	CB	PRO	350	10.483	18.445	37.139	1.00	44.92
	atom	2691	CG	PRO	350	9.669	18.407	38.365	1.00	45.21
	atom	2692	C	PRO	350	9.544	19.493	35.071	1.00	45.61
	atom	2693	O	PRO	350	8.331	19.592	34.918	1.00	46.07
35	atom	2694	N	GLY	351	10.401	19.162	34.113	1.00	46.35
	atom	2695	CA	GLY	351	10.005	18.757	32.775	1.00	47.99
	atom	2696	C	GLY	351	10.482	17.328	32.536	1.00	48.76

	atom	2697	O	GLY	351	10.650	16.934	31.387	1.00	50.63
	atom	2698	N	ASP	352	10.772	16.565	33.549	1.00	49.47
	atom	2699	CA	ASP	352	11.240	15.202	33.634	1.00	49.94
	atom	2700	CB	ASP	352	12.352	14.676	32.764	1.00	53.09
5	atom	2701	CG	ASP	352	12.273	14.668	31.267	1.00	56.60
	atom	2702	OD1	ASP	352	11.168	14.516	30.693	1.00	58.67
	atom	2703	OD2	ASP	352	13.304	14.892	30.595	1.00	57.49
	atom	2704	C	ASP	352	11.801	15.115	35.078	1.00	48.74
	atom	2705	O	ASP	352	12.708	15.886	35.392	1.00	48.43
10	atom	2706	N	PRO	353	11.209	14.255	35.880	1.00	47.25
	atom	2707	CD	PRO	353	10.129	13.318	35.538	1.00	47.18
	atom	2708	CA	PRO	353	11.686	14.089	37.245	1.00	46.26
	atom	2709	CB	PRO	353	10.943	12.864	37.751	1.00	46.47
	atom	2710	CG	PRO	353	9.733	12.747	36.880	1.00	47.48
15	atom	2711	C	PRO	353	13.201	13.898	37.232	1.00	44.25
	atom	2712	O	PRO	353	13.758	13.200	36.384	1.00	43.68
	atom	2713	N	PRO	354	13.889	14.576	38.137	1.00	42.38
	atom	2714	CD	PRO	354	13.280	15.455	39.167	1.00	41.40
	atom	2715	CA	PRO	354	15.327	14.433	38.270	1.00	41.55
20	atom	2716	CB	PRO	354	15.678	15.311	39.458	1.00	40.93
	atom	2717	CG	PRO	354	14.425	15.781	40.068	1.00	41.08
	atom	2718	C	PRO	354	15.682	12.963	38.489	1.00	40.83
	atom	2719	O	PRO	354	14.846	12.186	38.945	1.00	39.88
	atom	2720	N	GLN	355	16.893	12.540	38.174	1.00	40.01
25	atom	2721	CA	GLN	355	17.341	11.172	38.381	1.00	40.63
	atom	2722	CB	GLN	355	17.482	10.394	37.080	1.00	44.11
	atom	2723	CG	GLN	355	16.200	10.029	36.360	1.00	48.70
	atom	2724	CD	GLN	355	15.178	9.250	37.155	1.00	50.76
	atom	2725	OE1	GLN	355	13.960	9.418	37.021	1.00	51.58
30	atom	2726	NE2	GLN	355	15.639	8.358	38.025	1.00	52.35
	atom	2727	C	GLN	355	18.676	11.159	39.129	1.00	39.01
	atom	2728	O	GLN	355	19.591	11.874	38.766	1.00	39.46
	atom	2729	N	PRO	356	18.766	10.401	40.212	1.00	38.08
	atom	2730	CD	PRO	356	17.686	9.508	40.706	1.00	37.88
35	atom	2731	CA	PRO	356	19.989	10.292	40.981	1.00	36.95
	atom	2732	CB	PRO	356	19.553	9.541	42.233	1.00	37.62

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	atom	2733	CG	PRO	356	18.347	8.771	41.837	1.00	38.20
	atom	2734	C	PRO	356	21.039	9.542	40.187	1.00	35.57
	atom	2735	O	PRO	356	20.764	8.514	39.575	1.00	34.77
	atom	2736	N	GLU	357	22.257	10.039	40.116	1.00	35.70
5	atom	2737	CA	GLU	357	23.340	9.390	39.376	1.00	34.95
	atom	2738	CB	GLU	357	23.751	10.274	38.200	1.00	37.14
	atom	2739	CG	GLU	357	22.730	10.421	37.097	1.00	39.47
	atom	2740	CD	GLU	357	22.447	9.146	36.323	1.00	42.28
	atom	2741	OE1	GLU	357	21.393	9.132	35.638	1.00	43.89
10	atom	2742	OE2	GLU	357	23.211	8.161	36.357	1.00	42.55
	atom	2743	C	GLU	357	24.548	9.117	40.259	1.00	34.15
	atom	2744	O	GLU	357	24.857	9.889	41.175	1.00	33.32
	atom	2745	N	TYR	358	25.204	7.971	40.028	1.00	33.12
	atom	2746	CA	TYR	358	26.368	7.592	40.828	1.00	32.89
15	atom	2747	CB	TYR	358	26.121	6.276	41.572	1.00	31.78
	atom	2748	CG	TYR	358	24.884	6.409	42.440	1.00	29.69
	atom	2749	CD1	TYR	358	23.643	6.062	41.921	1.00	28.37
	atom	2750	CE1	TYR	358	22.497	6.202	42.680	1.00	27.66
	atom	2751	CD2	TYR	358	24.964	6.929	43.721	1.00	28.05
20	atom	2752	CE2	TYR	358	23.832	7.070	44.500	1.00	27.10
	atom	2753	CZ	TYR	358	22.616	6.700	43.968	1.00	27.91
	atom	2754	OH	TYR	358	21.493	6.859	44.726	1.00	29.25
	atom	2755	C	TYR	358	27.617	7.498	39.961	1.00	33.56
	atom	2756	O	TYR	358	28.702	7.054	40.342	1.00	33.09
25	atom	2757	N	ASP	359	27.465	8.035	38.758	1.00	34.00
	atom	2758	CA	ASP	359	28.560	8.056	37.788	1.00	35.55
	atom	2759	CB	ASP	359	28.307	6.982	36.746	1.00	39.76
	atom	2760	CG	ASP	359	29.297	6.923	35.608	1.00	43.48
	atom	2761	OD1	ASP	359	29.147	6.071	34.692	1.00	45.94
30	atom	2762	OD2	ASP	359	30.260	7.722	35.597	1.00	42.96
	atom	2763	C	ASP	359	28.604	9.483	37.266	1.00	35.24
	atom	2764	O	ASP	359	27.667	9.918	36.599	1.00	35.02
	atom	2765	N	LEU	360	29.684	10.208	37.572	1.00	34.88
	atom	2766	CA	LEU	360	29.817	11.596	37.176	1.00	34.12
35	atom	2767	CB	LEU	360	31.119	12.265	37.634	1.00	31.83
	atom	2768	CG	LEU	360	31.317	13.716	37.131	1.00	30.38

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5	atom	2769	CD1	LEU	360	30.430	14.704	37.872	1.00	27.11
	atom	2770	CD2	LEU	360	32.770	14.147	37.246	1.00	30.40
	atom	2771	C	LEU	360	29.666	11.777	35.668	1.00	34.75
	atom	2772	O	LEU	360	29.054	12.757	35.231	1.00	34.42
	atom	2773	N	GLU	361	30.096	10.817	34.863	1.00	34.16
	atom	2774	CA	GLU	361	29.977	10.894	33.420	1.00	35.31
	atom	2775	CB	GLU	361	30.780	9.768	32.756	1.00	36.45
	atom	2776	CG	GLU	361	30.771	9.786	31.239	1.00	37.49
10	atom	2777	CD	GLU	361	31.634	8.725	30.603	1.00	39.14
	atom	2778	OE1	GLU	361	31.856	8.786	29.370	1.00	39.05
	atom	2779	OE2	GLU	361	32.106	7.819	31.328	1.00	40.86
	atom	2780	C	GLU	361	28.531	10.900	32.961	1.00	35.64
15	atom	2781	O	GLU	361	28.240	11.401	31.873	1.00	35.05
	atom	2782	N	LEU	362	27.590	10.416	33.767	1.00	36.15
	atom	2783	CA	LEU	362	26.180	10.399	33.424	1.00	36.31
	atom	2784	CB	LEU	362	25.566	9.152	34.049	1.00	37.48
	atom	2785	CG	LEU	362	26.067	7.810	33.504	1.00	38.17
	atom	2786	CD1	LEU	362	25.373	6.655	34.214	1.00	37.08
20	atom	2787	CD2	LEU	362	25.857	7.710	32.001	1.00	36.11
	atom	2788	C	LEU	362	25.413	11.637	33.873	1.00	37.39
	atom	2789	O	LEU	362	24.188	11.755	33.757	1.00	36.29
	atom	2790	N	ILE	363	26.140	12.615	34.401	1.00	38.15
25	atom	2791	CA	ILE	363	25.558	13.860	34.849	1.00	39.73
	atom	2792	CB	ILE	363	26.116	14.297	36.206	1.00	40.87
	atom	2793	CG2	ILE	363	25.454	15.628	36.541	1.00	41.04
	atom	2794	CG1	ILE	363	25.848	13.247	37.286	1.00	40.69
	atom	2795	CD1	ILE	363	26.375	13.634	38.655	1.00	41.48
	atom	2796	C	ILE	363	25.791	14.958	33.812	1.00	40.78
	atom	2797	O	ILE	363	26.895	15.487	33.664	1.00	41.08
	atom	2798	N	THR	364	24.741	15.289	33.084	1.00	41.16
30	atom	2799	CA	THR	364	24.764	16.332	32.074	1.00	42.71
	atom	2800	CB	THR	364	23.769	15.986	30.948	1.00	42.29
	atom	2801	OG1	THR	364	24.228	14.807	30.280	1.00	43.03
	atom	2802	CG2	THR	364	23.642	17.086	29.918	1.00	42.15
35	atom	2803	C	THR	364	24.389	17.694	32.656	1.00	43.62
	atom	2804	O	THR	364	23.287	17.881	33.161	1.00	44.02

	atom	2805	N	SER	365	25.284	18.664	32.555	1.00	44.40
	atom	2806	CA	SER	365	25.056	20.024	33.028	1.00	44.48
	atom	2807	CB	SER	365	25.925	20.343	34.230	1.00	43.36
	atom	2808	OG	SER	365	26.885	21.343	34.027	1.00	42.52
5	atom	2809	C	SER	365	25.366	21.000	31.894	1.00	45.05
	atom	2810	O	SER	365	26.450	20.973	31.310	1.00	45.65
	atom	2811	N	CYS	366	24.398	21.821	31.509	1.00	45.44
	atom	2812	CA	CYS	366	24.557	22.753	30.389	1.00	45.06
	atom	2813	CB	CYS	366	25.728	23.706	30.609	1.00	44.43
10	atom	2814	SG	CYS	366	25.536	24.920	31.938	1.00	44.13
	atom	2815	C	CYS	366	24.736	21.951	29.109	1.00	44.32
	atom	2816	O	CYS	366	25.583	22.203	28.261	1.00	43.80
	atom	2817	N	SER	367	24.010	20.852	28.957	1.00	44.70
	atom	2818	CA	SER	367	24.054	19.911	27.854	1.00	44.20
15	atom	2819	CB	SER	367	23.535	20.556	26.562	1.00	46.68
	atom	2820	OG	SER	367	24.493	21.447	26.012	1.00	48.52
	atom	2821	C	SER	367	25.435	19.295	27.631	1.00	42.31
	atom	2822	O	SER	367	25.704	18.709	26.581	1.00	42.62
	atom	2823	N	SER	368	26.287	19.303	28.642	1.00	40.18
20	atom	2824	CA	SER	368	27.633	18.771	28.546	1.00	37.66
	atom	2825	CB	SER	368	28.571	19.988	28.603	1.00	39.21
	atom	2826	OG	SER	368	29.879	19.551	28.251	1.00	45.58
	atom	2827	C	SER	368	27.947	17.759	29.635	1.00	34.95
	atom	2828	O	SER	368	27.245	17.730	30.654	1.00	34.69
25	atom	2829	N	ASN	369	28.935	16.890	29.461	1.00	32.39
	atom	2830	CA	ASN	369	29.295	15.969	30.529	1.00	31.04
	atom	2831	CB	ASN	369	28.588	14.618	30.529	1.00	25.95
	atom	2832	CG	ASN	369	28.969	13.718	29.370	1.00	25.90
	atom	2833	OD1	ASN	369	28.481	13.977	28.263	1.00	24.06
30	atom	2834	ND2	ASN	369	29.834	12.727	29.602	1.00	22.99
	atom	2835	C	ASN	369	30.807	15.760	30.570	1.00	30.92
	atom	2836	O	ASN	369	31.511	15.859	29.565	1.00	31.50
	atom	2837	N	VAL	370	31.280	15.448	31.769	1.00	30.92
	atom	2838	CA	VAL	370	32.709	15.172	31.939	1.00	31.89
35	atom	2839	CB	VAL	370	33.101	15.353	33.416	1.00	32.13
	atom	2840	CG1	VAL	370	34.538	14.953	33.666	1.00	30.83

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5	atom	2841	CG2	VAL	370	32.820	16.794	33.830	1.00	30.79
	atom	2842	C	VAL	370	33.002	13.746	31.505	1.00	32.09
	atom	2843	O	VAL	370	32.215	12.849	31.804	1.00	33.79
	atom	2844	N	SER	371	34.106	13.512	30.827	1.00	32.19
	atom	2845	CA	SER	371	34.468	12.157	30.428	1.00	32.30
	atom	2846	CB	SER	371	33.951	11.790	29.044	1.00	32.16
	atom	2847	OG	SER	371	33.909	10.370	28.902	1.00	32.16
	atom	2848	C	SER	371	35.985	12.046	30.554	1.00	32.58
	atom	2849	O	SER	371	36.646	13.062	30.744	1.00	32.53
	atom	2850	N	VAL	372	36.516	10.841	30.474	1.00	33.10
10	atom	2851	CA	VAL	372	37.922	10.551	30.661	1.00	33.98
	atom	2852	CB	VAL	372	38.090	9.473	31.772	1.00	34.27
	atom	2853	CG1	VAL	372	39.542	9.124	32.057	1.00	35.63
	atom	2854	CG2	VAL	372	37.424	9.936	33.046	1.00	33.72
	atom	2855	C	VAL	372	38.569	9.983	29.401	1.00	33.96
15	atom	2856	O	VAL	372	37.956	9.274	28.611	1.00	33.59
	atom	2857	N	ALA	373	39.840	10.249	29.258	1.00	34.15
	atom	2858	CA	ALA	373	40.697	9.778	28.190	1.00	36.83
	atom	2859	CB	ALA	373	40.553	10.520	26.879	1.00	35.63
	atom	2860	C	ALA	373	42.121	9.943	28.718	1.00	37.97
20	atom	2861	O	ALA	373	42.313	10.371	29.854	1.00	37.83
	atom	2862	N	HIS	374	43.087	9.493	27.932	1.00	39.90
	atom	2863	CA	HIS	374	44.482	9.598	28.357	1.00	42.26
	atom	2864	CB	HIS	374	45.072	8.199	28.574	1.00	43.99
	atom	2865	CG	HIS	374	44.278	7.327	29.499	1.00	45.89
25	atom	2866	CD2	HIS	374	43.112	6.664	29.272	1.00	45.73
	atom	2867	ND1	HIS	374	44.619	7.070	30.809	1.00	45.75
	atom	2868	CE1	HIS	374	43.700	6.280	31.340	1.00	46.05
	atom	2869	NE2	HIS	374	42.773	6.034	30.436	1.00	45.88
	atom	2870	C	HIS	374	45.290	10.325	27.287	1.00	42.98
30	atom	2871	O	HIS	374	44.953	10.190	26.105	1.00	42.57
	atom	2872	N	ASP	375	46.351	11.003	27.701	1.00	43.81
	atom	2873	CA	ASP	375	47.229	11.653	26.731	1.00	45.84
	atom	2874	CB	ASP	375	47.842	12.946	27.257	1.00	45.77
	atom	2875	CG	ASP	375	48.691	12.754	28.493	1.00	46.41
35	atom	2876	OD1	ASP	375	49.167	11.623	28.715	1.00	47.28

	atom	2877	OD2	ASP	375	48.860	13.736	29.251	1.00	46.70
	atom	2878	C	ASP	375	48.305	10.658	26.308	1.00	47.08
	atom	2879	O	ASP	375	48.291	9.501	26.716	1.00	46.83
	atom	2880	N	ALA	376	49.273	11.093	25.521	1.00	49.15
5	atom	2881	CA	ALA	376	50.360	10.276	25.006	1.00	51.61
	atom	2882	CB	ALA	376	51.251	11.144	24.120	1.00	52.07
	atom	2883	C	ALA	376	51.226	9.638	26.083	1.00	52.97
	atom	2884	O	ALA	376	51.710	8.509	25.962	1.00	52.80
	atom	2885	N	SER	377	51.395	10.352	27.197	1.00	54.26
10	atom	2886	CA	SER	377	52.164	9.858	28.327	1.00	55.35
	atom	2887	CB	SER	377	52.593	11.008	29.237	1.00	57.26
	atom	2888	OG	SER	377	53.596	11.792	28.607	1.00	61.87
	atom	2889	C	SER	377	51.395	8.841	29.154	1.00	55.47
	atom	2890	O	SER	377	51.924	8.328	30.147	1.00	56.14
15	atom	2891	N	GLY	378	50.132	8.595	28.839	1.00	55.00
	atom	2892	CA	GLY	378	49.291	7.672	29.580	1.00	54.48
	atom	2893	C	GLY	378	48.493	8.397	30.656	1.00	54.15
	atom	2894	O	GLY	378	47.610	7.825	31.280	1.00	54.18
	atom	2895	N	LYS	379	48.791	9.667	30.874	1.00	54.05
20	atom	2896	CA	LYS	379	48.150	10.497	31.875	1.00	53.89
	atom	2897	CB	LYS	379	48.780	11.888	31.834	1.00	57.08
	atom	2898	CG	LYS	379	48.193	12.977	32.700	1.00	59.77
	atom	2899	CD	LYS	379	48.876	13.152	34.040	1.00	61.29
	atom	2900	CE	LYS	379	48.686	14.564	34.577	1.00	62.90
25	atom	2901	NZ	LYS	379	49.596	15.557	33.934	1.00	64.60
	atom	2902	C	LYS	379	46.645	10.594	31.650	1.00	52.58
	atom	2903	O	LYS	379	46.186	10.798	30.523	1.00	53.27
	atom	2904	N	ARG	380	45.871	10.429	32.716	1.00	50.20
	atom	2905	CA	ARG	380	44.424	10.576	32.598	1.00	48.14
30	atom	2906	CB	ARG	380	43.646	10.049	33.801	1.00	50.63
	atom	2907	CG	ARG	380	43.608	8.524	33.802	1.00	55.18
	atom	2908	CD	ARG	380	43.179	7.995	35.154	1.00	57.32
	atom	2909	NE	ARG	380	41.738	8.052	35.338	1.00	60.86
	atom	2910	CZ	ARG	380	41.148	8.571	36.410	1.00	63.42
35	atom	2911	NH1	ARG	380	41.868	9.109	37.392	1.00	63.63
	atom	2912	NH2	ARG	380	39.816	8.557	36.466	1.00	64.35

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	atom	2913	C	ARG	380	44.081	12.054	32.408	1.00	44.95
	atom	2914	O	ARG	380	44.714	12.937	32.972	1.00	44.32
	atom	2915	N	VAL	381	43.144	12.318	31.519	1.00	42.18
	atom	2916	CA	VAL	381	42.707	13.671	31.213	1.00	40.01
5	atom	2917	CB	VAL	381	43.306	14.205	29.908	1.00	40.44
	atom	2918	CG1	VAL	381	42.569	15.440	29.391	1.00	39.66
	atom	2919	CG2	VAL	381	44.788	14.558	30.069	1.00	40.03
	atom	2920	C	VAL	381	41.177	13.697	31.180	1.00	38.59
	atom	2921	O	VAL	381	40.536	12.953	30.447	1.00	36.92
10	atom	2922	N	TYR	382	40.614	14.563	32.017	1.00	38.03
	atom	2923	CA	TYR	382	39.168	14.753	32.103	1.00	37.24
	atom	2924	CB	TYR	382	38.648	15.092	33.493	1.00	37.22
	atom	2925	CG	TYR	382	38.747	13.983	34.512	1.00	37.02
	atom	2926	CD1	TYR	382	39.799	13.959	35.424	1.00	37.48
15	atom	2927	CE1	TYR	382	39.925	12.962	36.374	1.00	37.09
	atom	2928	CD2	TYR	382	37.814	12.967	34.571	1.00	36.70
	atom	2929	CE2	TYR	382	37.934	11.963	35.519	1.00	38.46
	atom	2930	CZ	TYR	382	38.991	11.952	36.408	1.00	38.46
	atom	2931	OH	TYR	382	39.071	10.928	37.331	1.00	38.36
20	atom	2932	C	TYR	382	38.822	15.877	31.130	1.00	37.05
	atom	2933	O	TYR	382	39.654	16.768	30.964	1.00	37.38
	atom	2934	N	TYR	383	37.683	15.795	30.461	1.00	36.32
	atom	2935	CA	TYR	383	37.317	16.825	29.491	1.00	36.24
	atom	2936	CB	TYR	383	38.090	16.600	28.167	1.00	35.32
25	atom	2937	CG	TYR	383	37.566	15.347	27.491	1.00	34.72
	atom	2938	CD1	TYR	383	36.637	15.441	26.466	1.00	34.29
	atom	2939	CE1	TYR	383	36.120	14.301	25.868	1.00	33.76
	atom	2940	CD2	TYR	383	37.950	14.080	27.918	1.00	34.05
	atom	2941	CE2	TYR	383	37.438	12.938	27.334	1.00	32.33
30	atom	2942	CZ	TYR	383	36.521	13.058	26.317	1.00	33.15
	atom	2943	OH	TYR	383	35.992	11.932	25.742	1.00	32.40
	atom	2944	C	TYR	383	35.807	16.829	29.292	1.00	35.79
	atom	2945	O	TYR	383	35.113	15.894	29.708	1.00	36.84
	atom	2946	N	LEU	384	35.279	17.859	28.657	1.00	34.97
35	atom	2947	CA	LEU	384	33.859	17.983	28.395	1.00	35.04
	atom	2948	CB	LEU	384	33.432	19.460	28.435	1.00	39.33

5	atom	2949	CG	LEU	384	33.262	20.079	29.829	1.00	43.11
	atom	2950	CD1	LEU	384	33.165	21.590	29.676	1.00	43.79
	atom	2951	CD2	LEU	384	32.024	19.522	30.515	1.00	41.32
	atom	2952	C	LEU	384	33.459	17.483	27.016	1.00	33.98
	atom	2953	O	LEU	384	34.107	17.837	26.047	1.00	33.66
	atom	2954	N	THR	385	32.371	16.736	26.954	1.00	33.83
	atom	2955	CA	THR	385	31.777	16.231	25.746	1.00	33.24
	atom	2956	CB	THR	385	31.729	14.693	25.561	1.00	32.40
10	atom	2957	OG1	THR	385	32.551	14.004	26.483	1.00	36.41
	atom	2958	CG2	THR	385	32.043	14.363	24.140	1.00	26.24
	atom	2959	C	THR	385	30.251	16.509	25.855	1.00	33.11
	atom	2960	O	THR	385	29.826	17.045	26.858	1.00	31.29
	atom	2961	N	ARG	386	29.541	15.963	24.888	1.00	32.58
	atom	2962	CA	ARG	386	28.114	15.990	24.784	1.00	34.19
	atom	2963	CB	ARG	386	27.629	17.411	24.440	1.00	34.94
	atom	2964	CG	ARG	386	28.175	17.935	23.110	1.00	34.47
15	atom	2965	CD	ARG	386	27.384	19.165	22.646	1.00	32.11
	atom	2966	NE	ARG	386	26.025	18.748	22.321	1.00	31.36
	atom	2967	CZ	ARG	386	24.921	19.452	22.468	1.00	32.38
	atom	2968	NH1	ARG	386	24.987	20.695	22.972	1.00	30.65
	atom	2969	NH2	ARG	386	23.739	18.929	22.130	1.00	29.72
	atom	2970	C	ARG	386	27.697	15.047	23.654	1.00	35.06
	atom	2971	O	ARG	386	28.515	14.669	22.812	1.00	35.18
	atom	2972	N	ASP	387	26.440	14.626	23.641	1.00	36.34
20	atom	2973	CA	ASP	387	25.938	13.822	22.503	1.00	35.99
	atom	2974	CB	ASP	387	24.459	13.578	22.775	1.00	35.33
	atom	2975	CG	ASP	387	23.806	12.697	21.735	1.00	36.35
	atom	2976	OD1	ASP	387	23.725	13.107	20.566	1.00	36.75
	atom	2977	OD2	ASP	387	23.396	11.580	22.124	1.00	38.67
	atom	2978	C	ASP	387	26.137	14.721	21.287	1.00	36.12
	atom	2979	O	ASP	387	25.816	15.920	21.325	1.00	35.42
	atom	2980	N	PRO	388	26.680	14.218	20.193	1.00	36.16
25	atom	2981	CD	PRO	388	27.160	12.838	20.001	1.00	35.95
	atom	2982	CA	PRO	388	26.977	15.055	19.044	1.00	35.58
	atom	2983	CB	PRO	388	28.219	14.394	18.462	1.00	35.69
	atom	2984	CG	PRO	388	28.154	12.976	18.879	1.00	36.08

5	atom	2985	C	PRO	388	25.861	15.196	18.048	1.00	34.78
	atom	2986	O	PRO	388	26.089	15.792	16.984	1.00	36.28
	atom	2987	N	THR	389	24.650	14.761	18.349	1.00	33.85
	atom	2988	CA	THR	389	23.542	14.879	17.400	1.00	33.11
	atom	2989	CB	THR	389	22.268	14.269	17.999	1.00	32.28
	atom	2990	OG1	THR	389	22.490	12.872	18.236	1.00	30.88
	atom	2991	CG2	THR	389	21.117	14.462	17.028	1.00	34.42
	atom	2992	C	THR	389	23.295	16.291	16.902	1.00	33.31
10	atom	2993	O	THR	389	23.417	16.560	15.685	1.00	33.51
	atom	2994	N	THR	390	22.997	17.229	17.803	1.00	32.85
	atom	2995	CA	THR	390	22.764	18.622	17.404	1.00	32.06
	atom	2996	CB	THR	390	22.292	19.497	18.561	1.00	31.41
15	atom	2997	OG1	THR	390	21.061	18.938	19.070	1.00	32.36
	atom	2998	CG2	THR	390	22.024	20.929	18.123	1.00	28.60
	atom	2999	C	THR	390	23.936	19.204	16.643	1.00	32.52
	atom	3000	O	THR	390	23.801	19.599	15.483	1.00	33.52
20	atom	3001	N	PRO	391	25.146	19.199	17.184	1.00	32.89
	atom	3002	CD	PRO	391	25.438	18.741	18.568	1.00	31.63
	atom	3003	CA	PRO	391	26.326	19.640	16.464	1.00	32.78
	atom	3004	CB	PRO	391	27.455	19.190	17.382	1.00	32.01
	atom	3005	CG	PRO	391	26.853	19.204	18.748	1.00	31.87
	atom	3006	C	PRO	391	26.454	19.036	15.069	1.00	33.95
	atom	3007	O	PRO	391	26.680	19.768	14.093	1.00	34.28
	atom	3008	N	LEU	392	26.330	17.721	14.869	1.00	34.68
25	atom	3009	CA	LEU	392	26.436	17.125	13.534	1.00	35.01
	atom	3010	CB	LEU	392	26.497	15.594	13.503	1.00	33.24
	atom	3011	CG	LEU	392	27.633	14.875	14.228	1.00	33.16
	atom	3012	CD1	LEU	392	27.551	13.358	14.080	1.00	33.71
30	atom	3013	CD2	LEU	392	28.988	15.363	13.739	1.00	32.20
	atom	3014	C	LEU	392	25.250	17.579	12.678	1.00	34.77
	atom	3015	O	LEU	392	25.421	17.837	11.490	1.00	35.58
	atom	3016	N	ALA	393	24.059	17.698	13.249	1.00	34.40
35	atom	3017	CA	ALA	393	22.886	18.133	12.497	1.00	34.19
	atom	3018	CB	ALA	393	21.643	18.057	13.367	1.00	33.08
	atom	3019	C	ALA	393	23.069	19.540	11.968	1.00	35.46
	atom	3020	O	ALA	393	22.954	19.790	10.767	1.00	35.67

	atom	3021	N	ARG	394	23.494	20.470	12.837	1.00	35.98
	atom	3022	CA	ARG	394	23.684	21.857	12.419	1.00	36.11
	atom	3023	CB	ARG	394	23.828	22.786	13.625	1.00	34.15
	atom	3024	CG	ARG	394	22.559	22.929	14.434	1.00	31.37
5	atom	3025	CD	ARG	394	22.781	23.662	15.744	1.00	31.88
	atom	3026	NE	ARG	394	21.538	23.644	16.509	1.00	32.91
	atom	3027	CZ	ARG	394	21.287	24.206	17.676	1.00	32.38
	atom	3028	NH1	ARG	394	22.226	24.897	18.303	1.00	30.99
	atom	3029	NH2	ARG	394	20.069	24.059	18.192	1.00	33.05
10	atom	3030	C	ARG	394	24.885	21.952	11.497	1.00	37.45
	atom	3031	O	ARG	394	24.982	22.847	10.655	1.00	37.12
	atom	3032	N	ALA	395	25.823	21.016	11.668	1.00	37.82
	atom	3033	CA	ALA	395	26.999	20.974	10.799	1.00	39.25
	atom	3034	CB	ALA	395	28.047	20.027	11.355	1.00	37.77
15	atom	3035	C	ALA	395	26.562	20.591	9.376	1.00	39.69
	atom	3036	O	ALA	395	27.052	21.158	8.396	1.00	38.32
	atom	3037	N	ALA	396	25.589	19.684	9.263	1.00	40.30
	atom	3038	CA	ALA	396	25.055	19.312	7.964	1.00	42.27
	atom	3039	CB	ALA	396	24.204	18.056	8.032	1.00	39.84
20	atom	3040	C	ALA	396	24.254	20.473	7.367	1.00	43.62
	atom	3041	O	ALA	396	24.425	20.764	6.177	1.00	43.22
	atom	3042	N	TRP	397	23.449	21.152	8.170	1.00	45.19
	atom	3043	CA	TRP	397	22.639	22.279	7.715	1.00	47.62
	atom	3044	CB	TRP	397	21.745	22.834	8.814	1.00	44.59
25	atom	3045	CG	TRP	397	20.716	23.841	8.418	1.00	43.89
	atom	3046	CD2	TRP	397	19.324	23.607	8.155	1.00	40.94
	atom	3047	CE2	TRP	397	18.741	24.849	7.837	1.00	40.61
	atom	3048	CE3	TRP	397	18.519	22.469	8.154	1.00	39.29
	atom	3049	CD1	TRP	397	20.905	25.188	8.255	1.00	43.89
30	atom	3050	NE1	TRP	397	19.724	25.791	7.893	1.00	40.91
	atom	3051	CZ2	TRP	397	17.386	24.983	7.523	1.00	40.82
	atom	3052	CZ3	TRP	397	17.178	22.596	7.860	1.00	38.93
	atom	3053	CH2	TRP	397	16.624	23.849	7.534	1.00	39.60
	atom	3054	C	TRP	397	23.533	23.384	7.185	1.00	49.78
35	atom	3055	O	TRP	397	23.436	23.781	6.029	1.00	50.68
	atom	3056	N	GLU	398	24.506	23.814	7.976	1.00	52.21

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	atom	3057	CA	GLU	398	25.437	24.866	7.592	1.00	54.00
	atom	3058	CB	GLU	398	26.269	25.269	8.823	1.00	52.21
	atom	3059	CG	GLU	398	25.362	25.935	9.842	1.00	52.41
	atom	3060	CD	GLU	398	25.791	25.772	11.281	1.00	52.94
5	atom	3061	OE1	GLU	398	27.003	25.651	11.534	1.00	53.03
	atom	3062	OE2	GLU	398	24.875	25.766	12.135	1.00	53.80
	atom	3063	C	GLU	398	26.321	24.518	6.411	1.00	55.72
	atom	3064	O	GLU	398	26.841	25.410	5.734	1.00	55.38
	atom	3065	N	THR	399	26.540	23.240	6.139	1.00	57.98
10	atom	3066	CA	THR	399	27.334	22.789	5.006	1.00	60.29
	atom	3067	CB	THR	399	27.741	21.310	5.143	1.00	59.03
	atom	3068	OG1	THR	399	28.715	21.169	6.193	1.00	57.27
	atom	3069	CG2	THR	399	28.332	20.761	3.856	1.00	55.95
	atom	3070	C	THR	399	26.544	22.989	3.712	1.00	62.62
15	atom	3071	O	THR	399	27.077	23.478	2.723	1.00	62.55
	atom	3072	N	ALA	400	25.266	22.634	3.734	1.00	64.97
	atom	3073	CA	ALA	400	24.382	22.722	2.590	1.00	68.25
	atom	3074	CB	ALA	400	23.345	21.600	2.680	1.00	66.31
	atom	3075	C	ALA	400	23.636	24.032	2.406	1.00	70.56
20	atom	3076	O	ALA	400	22.955	24.196	1.397	1.00	70.31
	atom	3077	N	ARG	401	23.685	24.930	3.366	1.00	73.82
	atom	3078	CA	ARG	401	23.064	26.248	3.259	1.00	77.65
	atom	3079	CB	ARG	401	21.815	26.375	4.112	1.00	78.00
	atom	3080	CG	ARG	401	20.571	25.952	3.340	1.00	79.04
25	atom	3081	CD	ARG	401	19.459	25.515	4.279	1.00	80.15
	atom	3082	NE	ARG	401	18.245	25.207	3.522	1.00	81.25
	atom	3083	CZ	ARG	401	17.486	26.121	2.927	1.00	81.41
	atom	3084	NH1	ARG	401	17.803	27.411	3.008	1.00	81.90
	atom	3085	NH2	ARG	401	16.407	25.744	2.256	1.00	80.87
30	atom	3086	C	ARG	401	24.137	27.263	3.624	1.00	80.29
	atom	3087	O	ARG	401	25.287	26.830	3.785	1.00	80.65
	atom	3088	N	HIS	402	23.854	28.553	3.685	1.00	83.11
	atom	3089	CA	HIS	402	24.924	29.486	4.048	1.00	86.13
	atom	3090	CB	HIS	402	25.225	30.523	2.982	1.00	91.11
35	atom	3091	CG	HIS	402	25.771	29.917	1.723	1.00	94.82
	atom	3092	CD2	HIS	402	27.008	29.537	1.333	1.00	96.01

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5	atom	3093	ND1	HIS	402	24.928	29.621	0.671	1.00	96.32
	atom	3094	CE1	HIS	402	25.622	29.097	-0.322	1.00	96.81
	atom	3095	NE2	HIS	402	26.887	29.034	0.056	1.00	97.03
	atom	3096	C	HIS	402	24.531	30.181	5.339	1.00	86.71
	atom	3097	O	HIS	402	23.413	30.689	5.432	1.00	87.33
	atom	3098	N	THR	403	25.420	30.139	6.319	1.00	87.01
	atom	3099	CA	THR	403	25.039	30.722	7.598	1.00	87.23
	atom	3100	CB	THR	403	24.571	29.569	8.531	1.00	88.22
10	atom	3101	OG1	THR	403	25.411	28.440	8.220	1.00	88.58
	atom	3102	CG2	THR	403	23.118	29.177	8.395	1.00	88.27
	atom	3103	C	THR	403	26.185	31.438	8.257	1.00	86.71
	atom	3104	O	THR	403	26.915	30.816	9.045	1.00	87.12
15	atom	3105	N	PRO	404	26.201	32.769	8.228	1.00	85.86
	atom	3106	CD	PRO	404	25.301	33.637	7.444	1.00	85.94
	atom	3107	CA	PRO	404	27.145	33.546	9.027	1.00	84.50
	atom	3108	CB	PRO	404	26.916	34.982	8.649	1.00	85.41
	atom	3109	CG	PRO	404	25.622	35.026	7.921	1.00	85.62
	atom	3110	C	PRO	404	26.840	33.206	10.481	1.00	82.90
20	atom	3111	O	PRO	404	27.719	33.279	11.340	1.00	83.57
	atom	3112	N	VAL	405	25.612	32.787	10.797	1.00	80.26
	atom	3113	CA	VAL	405	25.258	32.209	12.077	1.00	76.56
	atom	3114	CB	VAL	405	23.914	32.621	12.655	1.00	77.33
	atom	3115	CG1	VAL	405	23.803	32.135	14.095	1.00	78.55
25	atom	3116	CG2	VAL	405	23.779	34.136	12.579	1.00	77.31
	atom	3117	C	VAL	405	25.395	30.679	11.954	1.00	73.50
	atom	3118	O	VAL	405	24.621	29.795	11.632	1.00	74.47
	atom	3119	N	ASN	406	26.666	30.382	12.116	1.00	69.31
30	atom	3120	CA	ASN	406	27.455	29.183	12.100	1.00	63.67
	atom	3121	CB	ASN	406	28.793	29.615	11.520	1.00	63.20
	atom	3122	CG	ASN	406	30.127	29.066	11.886	1.00	62.71
	atom	3123	OD1	ASN	406	31.137	29.632	11.419	1.00	61.73
	atom	3124	ND2	ASN	406	30.304	28.012	12.668	1.00	61.54
	atom	3125	C	ASN	406	27.667	28.644	13.510	1.00	59.88
	atom	3126	O	ASN	406	27.918	29.420	14.439	1.00	59.66
35	atom	3127	N	SER	407	27.647	27.323	13.630	1.00	55.29
	atom	3128	CA	SER	407	27.859	26.678	14.912	1.00	49.74

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	atom	3129	CB	SER	407	26.591	25.893	15.266	1.00	47.28
	atom	3130	OG	SER	407	26.402	24.857	14.324	1.00	45.94
	atom	3131	C	SER	407	29.044	25.727	14.919	1.00	46.85
	atom	3132	O	SER	407	29.650	25.524	15.970	1.00	46.32
5	atom	3133	N	TRP	408	29.384	25.157	13.779	1.00	44.02
	atom	3134	CA	TRP	408	30.441	24.176	13.645	1.00	42.14
	atom	3135	CB	TRP	408	30.528	23.673	12.201	1.00	42.71
	atom	3136	CG	TRP	408	31.041	24.595	11.151	1.00	41.41
	atom	3137	CD2	TRP	408	32.404	24.849	10.795	1.00	39.86
10	atom	3138	CE2	TRP	408	32.389	25.779	9.731	1.00	40.89
	atom	3139	CE3	TRP	408	33.633	24.402	11.274	1.00	39.00
	atom	3140	CD1	TRP	408	30.274	25.355	10.299	1.00	41.36
	atom	3141	NE1	TRP	408	31.084	26.065	9.441	1.00	39.61
	atom	3142	CZ2	TRP	408	33.565	26.255	9.146	1.00	42.06
15	atom	3143	CZ3	TRP	408	34.794	24.875	10.699	1.00	39.45
	atom	3144	CH2	TRP	408	34.760	25.796	9.637	1.00	40.98
	atom	3145	C	TRP	408	31.832	24.552	14.129	1.00	40.31
	atom	3146	O	TRP	408	32.501	23.703	14.742	1.00	40.63
	atom	3147	N	LEU	409	32.282	25.771	13.867	1.00	38.52
20	atom	3148	CA	LEU	409	33.609	26.187	14.299	1.00	37.09
	atom	3149	CB	LEU	409	34.026	27.419	13.511	1.00	36.98
	atom	3150	CG	LEU	409	35.421	27.942	13.889	1.00	36.72
	atom	3151	CD1	LEU	409	36.486	27.060	13.280	1.00	34.87
	atom	3152	CD2	LEU	409	35.544	29.407	13.489	1.00	37.52
25	atom	3153	C	LEU	409	33.643	26.380	15.811	1.00	36.39
	atom	3154	O	LEU	409	34.633	26.061	16.473	1.00	36.42
	atom	3155	N	GLY	410	32.544	26.824	16.407	1.00	34.70
	atom	3156	CA	GLY	410	32.430	26.928	17.850	1.00	34.06
	atom	3157	C	GLY	410	32.428	25.533	18.477	1.00	32.83
30	atom	3158	O	GLY	410	32.998	25.389	19.553	1.00	33.25
	atom	3159	N	ASN	411	31.828	24.532	17.856	1.00	31.83
	atom	3160	CA	ASN	411	31.845	23.170	18.396	1.00	31.75
	atom	3161	CB	ASN	411	30.826	22.247	17.742	1.00	31.51
	atom	3162	CG	ASN	411	29.406	22.544	18.185	1.00	33.79
35	atom	3163	OD1	ASN	411	29.036	22.563	19.365	1.00	33.87
	atom	3164	ND2	ASN	411	28.548	22.792	17.197	1.00	33.65

	atom	3165	C	ASN	411	33.252	22.579	18.323	1.00	30.32
	atom	3166	O	ASN	411	33.712	22.003	19.301	1.00	28.91
	atom	3167	N	ILE	412	33.959	22.838	17.225	1.00	30.29
	atom	3168	CA	ILE	412	35.352	22.412	17.107	1.00	29.80
5	atom	3169	CB	ILE	412	35.930	22.759	15.722	1.00	28.33
	atom	3170	CG2	ILE	412	37.433	22.535	15.671	1.00	26.14
	atom	3171	CG1	ILE	412	35.204	21.926	14.665	1.00	30.28
	atom	3172	CD1	ILE	412	35.617	22.087	13.221	1.00	30.99
	atom	3173	C	ILE	412	36.197	22.967	18.243	1.00	29.45
10	atom	3174	O	ILE	412	36.946	22.242	18.892	1.00	29.27
	atom	3175	N	ILE	413	36.110	24.258	18.533	1.00	30.12
	atom	3176	CA	ILE	413	36.813	24.898	19.632	1.00	29.29
	atom	3177	CB	ILE	413	36.575	26.426	19.550	1.00	27.87
	atom	3178	CG2	ILE	413	37.046	27.109	20.833	1.00	22.19
15	atom	3179	CG1	ILE	413	37.294	26.937	18.286	1.00	27.39
	atom	3180	CD1	ILE	413	37.149	28.412	17.985	1.00	22.53
	atom	3181	C	ILE	413	36.361	24.442	21.016	1.00	29.91
	atom	3182	O	ILE	413	37.182	24.135	21.886	1.00	29.57
	atom	3183	N	MET	414	35.059	24.450	21.277	1.00	29.74
20	atom	3184	CA	MET	414	34.520	24.056	22.575	1.00	31.48
	atom	3185	CB	MET	414	33.026	24.327	22.722	1.00	31.34
	atom	3186	CG	MET	414	32.592	25.778	22.904	1.00	34.57
	atom	3187	SD	MET	414	30.793	25.889	23.157	1.00	34.92
	atom	3188	CE	MET	414	30.203	25.274	21.588	1.00	33.88
25	atom	3189	C	MET	414	34.740	22.569	22.867	1.00	32.18
	atom	3190	O	MET	414	34.991	22.207	24.007	1.00	32.15
	atom	3191	N	TYR	415	34.590	21.713	21.856	1.00	31.89
	atom	3192	CA	TYR	415	34.751	20.274	22.041	1.00	31.79
	atom	3193	CB	TYR	415	33.441	19.561	21.652	1.00	31.26
30	atom	3194	CG	TYR	415	32.278	20.001	22.531	1.00	30.18
	atom	3195	CD1	TYR	415	31.287	20.829	22.025	1.00	30.57
	atom	3196	CE1	TYR	415	30.240	21.259	22.828	1.00	29.66
	atom	3197	CD2	TYR	415	32.202	19.612	23.866	1.00	28.63
	atom	3198	CE2	TYR	415	31.160	20.016	24.667	1.00	29.14
35	atom	3199	CZ	TYR	415	30.183	20.848	24.141	1.00	30.26
	atom	3200	OH	TYR	415	29.118	21.284	24.896	1.00	31.45

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	atom	3201	C	TYR	415	35.954	19.747	21.262	1.00	31.79
	atom	3202	O	TYR	415	35.987	18.621	20.775	1.00	29.58
	atom	3203	N	ALA	416	37.039	20.552	21.247	1.00	32.47
	atom	3204	CA	ALA	416	38.276	20.172	20.567	1.00	32.91
5	atom	3205	CB	ALA	416	39.398	21.191	20.693	1.00	32.98
	atom	3206	C	ALA	416	38.858	18.833	20.999	1.00	32.92
	atom	3207	O	ALA	416	39.227	18.051	20.138	1.00	32.59
	atom	3208	N	PRO	417	38.924	18.528	22.290	1.00	32.74
	atom	3209	CD	PRO	417	38.558	19.431	23.409	1.00	33.21
10	atom	3210	CA	PRO	417	39.453	17.274	22.755	1.00	31.81
	atom	3211	CB	PRO	417	39.559	17.438	24.267	1.00	32.41
	atom	3212	CG	PRO	417	39.279	18.858	24.600	1.00	33.14
	atom	3213	C	PRO	417	38.561	16.088	22.445	1.00	31.61
	atom	3214	O	PRO	417	39.022	14.962	22.659	1.00	31.28
15	atom	3215	N	THR	418	37.297	16.277	22.051	1.00	30.92
	atom	3216	CA	THR	418	36.432	15.125	21.902	1.00	30.90
	atom	3217	CB	THR	418	34.919	15.435	21.915	1.00	28.55
	atom	3218	OG1	THR	418	34.554	15.925	20.623	1.00	25.08
	atom	3219	CG2	THR	418	34.558	16.409	23.019	1.00	24.07
20	atom	3220	C	THR	418	36.733	14.276	20.669	1.00	31.63
	atom	3221	O	THR	418	37.258	14.692	19.642	1.00	31.81
	atom	3222	N	LEU	419	36.308	13.029	20.798	1.00	31.21
	atom	3223	CA	LEU	419	36.435	12.022	19.760	1.00	32.67
	atom	3224	CB	LEU	419	35.841	10.713	20.280	1.00	35.25
25	atom	3225	CG	LEU	419	35.880	9.530	19.321	1.00	37.83
	atom	3226	CD1	LEU	419	37.294	8.972	19.278	1.00	38.55
	atom	3227	CD2	LEU	419	34.865	8.484	19.767	1.00	38.91
	atom	3228	C	LEU	419	35.717	12.443	18.486	1.00	32.51
	atom	3229	O	LEU	419	36.309	12.398	17.406	1.00	32.38
30	atom	3230	N	TRP	420	34.473	12.874	18.613	1.00	32.70
	atom	3231	CA	TRP	420	33.659	13.278	17.484	1.00	33.11
	atom	3232	CB	TRP	420	32.192	13.369	17.881	1.00	31.10
	atom	3233	CG	TRP	420	31.902	14.213	19.079	1.00	30.75
	atom	3234	CD2	TRP	420	31.504	15.585	19.128	1.00	28.76
35	atom	3235	CE2	TRP	420	31.335	15.922	20.488	1.00	29.63
	atom	3236	CE3	TRP	420	31.270	16.565	18.177	1.00	30.63

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	atom	3237	CD1	TRP	420	31.971	13.778	20.380	1.00	29.23
	atom	3238	NE1	TRP	420	31.628	14.798	21.220	1.00	28.67
	atom	3239	C22	TRP	420	30.942	17.187	20.922	1.00	28.35
	atom	3240	C23	TRP	420	30.875	17.832	18.587	1.00	30.87
5	atom	3241	CH2	TRP	420	30.713	18.125	19.951	1.00	30.22
	atom	3242	C	TRP	420	34.095	14.570	16.820	1.00	34.03
	atom	3243	O	TRP	420	34.089	14.625	15.579	1.00	35.28
	atom	3244	N	ALA	421	34.498	15.589	17.566	1.00	35.05
	atom	3245	CA	ALA	421	34.930	16.830	16.912	1.00	35.21
10	atom	3246	CB	ALA	421	35.090	17.983	17.886	1.00	32.54
	atom	3247	C	ALA	421	36.233	16.608	16.140	1.00	35.06
	atom	3248	O	ALA	421	36.406	17.135	15.054	1.00	34.62
	atom	3249	N	ARG	422	37.178	15.880	16.703	1.00	35.88
	atom	3250	CA	ARG	422	38.463	15.622	16.082	1.00	36.45
15	atom	3251	CB	ARG	422	39.448	14.916	17.030	1.00	33.76
	atom	3252	CG	ARG	422	39.794	15.760	18.248	1.00	30.93
	atom	3253	CD	ARG	422	40.566	14.972	19.280	1.00	30.09
	atom	3254	NE	ARG	422	41.882	14.639	18.789	1.00	30.91
	atom	3255	CZ	ARG	422	42.717	13.716	19.221	1.00	30.55
20	atom	3256	NH1	ARG	422	42.442	12.902	20.222	1.00	29.68
	atom	3257	NH2	ARG	422	43.892	13.605	18.614	1.00	31.62
	atom	3258	C	ARG	422	38.327	14.771	14.828	1.00	37.67
	atom	3259	O	ARG	422	38.895	15.124	13.788	1.00	38.51
	atom	3260	N	MET	423	37.581	13.678	14.903	1.00	37.75
25	atom	3261	CA	MET	423	37.513	12.798	13.735	1.00	38.53
	atom	3262	CB	MET	423	37.260	11.347	14.172	1.00	36.22
	atom	3263	CG	MET	423	38.430	10.790	14.975	1.00	36.01
	atom	3264	SD	MET	423	38.431	8.992	15.184	1.00	35.56
	atom	3265	CE	MET	423	37.009	8.720	16.189	1.00	38.15
30	atom	3266	C	MET	423	36.535	13.283	12.688	1.00	38.86
	atom	3267	O	MET	423	36.860	13.258	11.500	1.00	39.81
	atom	3268	N	ILE	424	35.359	13.749	13.082	1.00	38.97
	atom	3269	CA	ILE	424	34.368	14.174	12.106	1.00	37.75
	atom	3270	CB	ILE	424	32.957	13.779	12.601	1.00	38.49
35	atom	3271	CG2	ILE	424	31.894	14.200	11.588	1.00	35.83
	atom	3272	CG1	ILE	424	32.917	12.261	12.856	1.00	36.65

5	atom	3273	CD1	ILE	424	31.754	11.812	13.706	1.00	34.42
	atom	3274	C	ILE	424	34.402	15.646	11.758	1.00	37.30
	atom	3275	O	ILE	424	34.645	15.977	10.596	1.00	36.87
	atom	3276	N	LEU	425	34.121	16.515	12.721	1.00	36.79
	atom	3277	CA	LEU	425	34.040	17.955	12.450	1.00	36.40
	atom	3278	CB	LEU	425	33.674	18.670	13.747	1.00	35.13
	atom	3279	CG	LEU	425	32.249	19.072	14.071	1.00	34.93
	atom	3280	CD1	LEU	425	31.172	18.312	13.307	1.00	33.38
10	atom	3281	CD2	LEU	425	31.998	18.932	15.575	1.00	33.84
	atom	3282	C	LEU	425	35.291	18.517	11.796	1.00	36.29
	atom	3283	O	LEU	425	35.236	19.101	10.702	1.00	35.35
	atom	3284	N	MET	426	36.456	18.340	12.414	1.00	36.26
15	atom	3285	CA	MET	426	37.706	18.845	11.858	1.00	37.08
	atom	3286	CB	MET	426	38.899	18.531	12.751	1.00	33.13
	atom	3287	CG	MET	426	38.912	19.257	14.089	1.00	30.96
	atom	3288	SD	MET	426	40.348	18.860	15.103	1.00	29.76
20	atom	3289	CE	MET	426	39.834	19.429	16.736	1.00	29.24
	atom	3290	C	MET	426	37.931	18.312	10.442	1.00	39.02
	atom	3291	O	MET	426	38.091	19.052	9.465	1.00	38.37
	atom	3292	N	THR	427	37.895	16.985	10.289	1.00	39.87
25	atom	3293	CA	THR	427	38.102	16.354	8.995	1.00	40.76
	atom	3294	CB	THR	427	37.949	14.827	9.106	1.00	40.03
	atom	3295	OG1	THR	427	38.813	14.360	10.169	1.00	35.72
	atom	3296	CG2	THR	427	38.312	14.144	7.796	1.00	36.09
30	atom	3297	C	THR	427	37.167	16.924	7.939	1.00	41.70
	atom	3298	O	THR	427	37.639	17.468	6.946	1.00	41.10
	atom	3299	N	HIS	428	35.864	16.853	8.151	1.00	42.78
	atom	3300	CA	HIS	428	34.870	17.365	7.214	1.00	43.45
35	atom	3301	CB	HIS	428	33.467	17.138	7.784	1.00	43.08
	atom	3302	CG	HIS	428	32.342	17.689	6.971	1.00	45.40
	atom	3303	CD2	HIS	428	31.546	18.774	7.156	1.00	45.59
	atom	3304	ND1	HIS	428	31.895	17.102	5.808	1.00	46.11
40	atom	3305	CE1	HIS	428	30.892	17.784	5.307	1.00	45.04
	atom	3306	NE2	HIS	428	30.653	18.803	6.113	1.00	45.57
	atom	3307	C	HIS	428	35.080	18.826	6.844	1.00	44.01
	atom	3308	O	HIS	428	35.277	19.161	5.672	1.00	43.70

5	atom	3309	N	PHE	429	35.085	19.734	7.823	1.00	44.14
	atom	3310	CA	PHE	429	35.250	21.155	7.531	1.00	43.88
	atom	3311	CB	PHE	429	34.887	22.034	8.742	1.00	40.24
	atom	3312	CG	PHE	429	33.392	21.939	8.984	1.00	37.92
	atom	3313	CD1	PHE	429	32.882	21.124	9.975	1.00	35.82
	atom	3314	CD2	PHE	429	32.520	22.662	8.192	1.00	36.00
	atom	3315	CE1	PHE	429	31.524	21.042	10.171	1.00	37.18
	atom	3316	CE2	PHE	429	31.157	22.588	8.386	1.00	36.86
10	atom	3317	CZ	PHE	429	30.653	21.771	9.380	1.00	37.75
	atom	3318	C	PHE	429	36.606	21.533	6.966	1.00	44.53
	atom	3319	O	PHE	429	36.663	22.328	6.022	1.00	42.96
	atom	3320	N	PHE	430	37.703	20.961	7.473	1.00	44.83
	atom	3321	CA	PHE	430	39.013	21.303	6.921	1.00	45.27
	atom	3322	CB	PHE	430	40.184	20.739	7.724	1.00	42.91
	atom	3323	CG	PHE	430	40.672	21.791	8.696	1.00	44.22
	atom	3324	CD1	PHE	430	40.113	21.932	9.958	1.00	42.81
15	atom	3325	CD2	PHE	430	41.682	22.663	8.308	1.00	43.15
	atom	3326	CE1	PHE	430	40.572	22.909	10.816	1.00	41.81
	atom	3327	CE2	PHE	430	42.140	23.639	9.166	1.00	42.09
	atom	3328	CZ	PHE	430	41.579	23.758	10.424	1.00	41.79
	atom	3329	C	PHE	430	39.048	20.868	5.466	1.00	47.01
	atom	3330	O	PHE	430	39.489	21.593	4.576	1.00	47.48
	atom	3331	N	SER	431	38.521	19.680	5.192	1.00	47.80
	atom	3332	CA	SER	431	38.404	19.179	3.838	1.00	49.28
25	atom	3333	CB	SER	431	37.581	17.898	3.880	1.00	48.60
	atom	3334	OG	SER	431	37.328	17.436	2.575	1.00	50.52
	atom	3335	C	SER	431	37.735	20.222	2.946	1.00	50.44
	atom	3336	O	SER	431	38.273	20.642	1.927	1.00	49.92
	atom	3337	N	ILE	432	36.550	20.679	3.344	1.00	51.96
	atom	3338	CA	ILE	432	35.811	21.722	2.647	1.00	53.03
	atom	3339	CB	ILE	432	34.455	22.006	3.308	1.00	54.28
	atom	3340	CG2	ILE	432	33.912	23.371	2.879	1.00	52.78
30	atom	3341	CG1	ILE	432	33.401	20.946	2.984	1.00	54.86
	atom	3342	CD1	ILE	432	33.775	19.505	3.168	1.00	57.63
	atom	3343	C	ILE	432	36.647	22.997	2.576	1.00	53.85
	atom	3344	O	ILE	432	36.679	23.664	1.537	1.00	54.19

5	atom	3345	N	LEU	433	37.339	23.354	3.648	1.00	54.39
	atom	3346	CA	LEU	433	38.207	24.520	3.654	1.00	55.73
	atom	3347	CB	LEU	433	38.786	24.784	5.047	1.00	54.14
	atom	3348	CG	LEU	433	37.766	25.206	6.112	1.00	53.57
	atom	3349	CD1	LEU	433	38.372	25.274	7.506	1.00	53.54
	atom	3350	CD2	LEU	433	37.178	26.554	5.728	1.00	52.32
	atom	3351	C	LEU	433	39.301	24.378	2.599	1.00	56.60
	atom	3352	O	LEU	433	39.573	25.335	1.865	1.00	56.68
10	atom	3353	N	LEU	434	39.949	23.230	2.486	1.00	57.17
	atom	3354	CA	LEU	434	41.003	23.027	1.504	1.00	58.82
	atom	3355	CB	LEU	434	41.648	21.647	1.643	1.00	58.32
	atom	3356	CG	LEU	434	42.701	21.422	2.720	1.00	57.32
	atom	3357	CD1	LEU	434	42.866	19.936	2.987	1.00	56.86
15	atom	3358	CD2	LEU	434	44.012	22.054	2.289	1.00	56.38
	atom	3359	C	LEU	434	40.487	23.193	0.078	1.00	60.29
	atom	3360	O	LEU	434	41.061	23.925	-0.732	1.00	60.68
	atom	3361	N	ALA	435	39.392	22.546	-0.283	1.00	61.41
20	atom	3362	CA	ALA	435	38.829	22.582	-1.618	1.00	63.40
	atom	3363	CB	ALA	435	37.694	21.565	-1.723	1.00	61.52
	atom	3364	C	ALA	435	38.281	23.917	-2.095	1.00	64.58
	atom	3365	O	ALA	435	38.433	24.245	-3.276	1.00	65.18
	atom	3366	N	GLN	436	37.671	24.691	-1.204	1.00	65.33
	atom	3367	CA	GLN	436	37.128	25.995	-1.566	1.00	66.41
	atom	3368	CB	GLN	436	35.883	26.287	-0.732	1.00	67.38
	atom	3369	CG	GLN	436	34.683	25.436	-1.099	1.00	68.91
25	atom	3370	CD	GLN	436	33.494	25.640	-0.188	1.00	70.95
	atom	3371	OE1	GLN	436	33.546	26.472	0.719	1.00	72.09
	atom	3372	NE2	GLN	436	32.424	24.884	-0.425	1.00	71.77
	atom	3373	C	GLN	436	38.206	27.053	-1.403	1.00	67.36
	atom	3374	O	GLN	436	37.999	28.262	-1.453	1.00	67.20
30	atom	3375	N	GLU	437	39.428	26.612	-1.127	1.00	68.17
	atom	3376	CA	GLU	437	40.637	27.367	-0.936	1.00	69.15
	atom	3377	CB	GLU	437	41.128	27.958	-2.263	1.00	70.70
	atom	3378	CG	GLU	437	41.976	27.009	-3.087	1.00	73.56
35	atom	3379	CD	GLU	437	42.477	27.573	-4.395	1.00	74.34
	atom	3380	OE1	GLU	437	42.210	28.748	-4.728	1.00	75.78

5	atom	3381	OE2	GLU	437	43.165	26.835	-5.134	1.00	74.99
	atom	3382	C	GLU	437	40.474	28.486	0.081	1.00	69.14
	atom	3383	O	GLU	437	41.096	29.545	-0.017	1.00	69.69
	atom	3384	N	GLN	438	39.650	28.275	1.098	1.00	68.54
	atom	3385	CA	GLN	438	39.347	29.281	2.091	1.00	67.99
	atom	3386	CB	GLN	438	37.830	29.400	2.265	1.00	68.91
	atom	3387	CG	GLN	438	36.922	29.732	1.117	1.00	70.66
	atom	3388	CD	GLN	438	35.453	29.571	1.474	1.00	72.42
10	atom	3389	OE1	GLN	438	35.094	28.874	2.431	1.00	73.52
	atom	3390	NE2	GLN	438	34.564	30.207	0.715	1.00	72.17
	atom	3391	C	GLN	438	39.958	29.012	3.461	1.00	67.01
	atom	3392	O	GLN	438	39.226	29.142	4.458	1.00	66.87
15	atom	3393	N	LEU	439	41.243	28.717	3.597	1.00	66.14
	atom	3394	CA	LEU	439	41.807	28.449	4.917	1.00	65.32
	atom	3395	CB	LEU	439	43.107	27.662	4.813	1.00	62.95
	atom	3396	CG	LEU	439	42.975	26.138	4.685	1.00	61.85
	atom	3397	CD1	LEU	439	44.358	25.546	4.428	1.00	60.25
	atom	3398	CD2	LEU	439	42.330	25.519	5.915	1.00	59.52
	atom	3399	C	LEU	439	42.027	29.693	5.766	1.00	65.59
	atom	3400	O	LEU	439	41.977	29.644	6.998	1.00	65.69
20	atom	3401	N	GLU	440	42.252	30.828	5.111	1.00	65.31
	atom	3402	CA	GLU	440	42.469	32.081	5.819	1.00	65.20
	atom	3403	CB	GLU	440	43.654	32.852	5.244	1.00	67.57
	atom	3404	CG	GLU	440	44.232	32.364	3.935	1.00	69.96
25	atom	3405	CD	GLU	440	45.582	31.688	4.085	1.00	70.77
	atom	3406	OE1	GLU	440	46.426	32.260	4.813	1.00	71.48
	atom	3407	OE2	GLU	440	45.790	30.616	3.478	1.00	70.59
	atom	3408	C	GLU	440	41.237	32.973	5.860	1.00	64.03
30	atom	3409	O	GLU	440	41.388	34.163	6.132	1.00	63.63
	atom	3410	N	LYS	441	40.052	32.416	5.660	1.00	63.26
	atom	3411	CA	LYS	441	38.830	33.218	5.674	1.00	62.52
	atom	3412	CB	LYS	441	37.826	32.634	4.686	1.00	63.67
35	atom	3413	CG	LYS	441	36.709	33.547	4.229	1.00	65.10
	atom	3414	CD	LYS	441	35.409	33.298	4.969	1.00	67.31
	atom	3415	CE	LYS	441	34.225	33.991	4.303	1.00	68.16
	atom	3416	NZ	LYS	441	32.956	33.729	5.046	1.00	68.70

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	atom	3417	C	LYS	441	38.270	33.335	7.085	1.00	61.57
	atom	3418	O	LYS	441	37.713	32.400	7.653	1.00	61.71
	atom	3419	N	ALA	442	38.451	34.509	7.682	1.00	60.16
	atom	3420	CA	ALA	442	37.974	34.760	9.035	1.00	58.38
5	atom	3421	CB	ALA	442	38.213	36.210	9.410	1.00	56.45
	atom	3422	C	ALA	442	36.490	34.427	9.137	1.00	57.62
	atom	3423	O	ALA	442	35.686	34.930	8.346	1.00	57.44
	atom	3424	N	LEU	443	36.129	33.601	10.112	1.00	56.15
	atom	3425	CA	LEU	443	34.733	33.248	10.302	1.00	55.01
10	atom	3426	CB	LEU	443	34.484	31.747	10.221	1.00	55.68
	atom	3427	CG	LEU	443	34.082	31.115	8.891	1.00	57.40
	atom	3428	CD1	LEU	443	35.253	30.980	7.936	1.00	57.65
	atom	3429	CD2	LEU	443	33.472	29.737	9.118	1.00	56.89
	atom	3430	C	LEU	443	34.235	33.761	11.654	1.00	54.60
15	atom	3431	O	LEU	443	34.939	33.701	12.666	1.00	54.65
	atom	3432	N	ASP	444	33.001	34.268	11.664	1.00	53.18
	atom	3433	CA	ASP	444	32.432	34.729	12.927	1.00	51.85
	atom	3434	CB	ASP	444	31.300	35.731	12.750	1.00	54.15
	atom	3435	CG	ASP	444	31.845	37.076	12.287	1.00	56.66
20	atom	3436	OD1	ASP	444	31.474	38.115	12.872	1.00	56.77
	atom	3437	OD2	ASP	444	32.664	37.098	11.339	1.00	57.61
	atom	3438	C	ASP	444	32.011	33.495	13.730	1.00	50.41
	atom	3439	O	ASP	444	31.420	32.529	13.244	1.00	49.80
	atom	3440	N	CYS	445	32.385	33.555	15.007	1.00	48.10
25	atom	3441	CA	CYS	445	32.105	32.440	15.895	1.00	46.01
	atom	3442	CB	CYS	445	33.353	31.553	15.947	1.00	45.19
	atom	3443	SG	CYS	445	33.151	30.116	17.018	1.00	44.60
	atom	3444	C	CYS	445	31.677	32.913	17.268	1.00	45.03
	atom	3445	O	CYS	445	32.441	33.531	18.011	1.00	44.71
30	atom	3446	N	GLN	446	30.430	32.615	17.613	1.00	43.85
	atom	3447	CA	GLN	446	29.886	33.014	18.899	1.00	43.53
	atom	3448	CB	GLN	446	28.410	33.429	18.744	1.00	45.01
	atom	3449	CG	GLN	446	27.663	33.612	20.050	1.00	44.42
	atom	3450	CD	GLN	446	27.856	34.950	20.731	1.00	44.74
35	atom	3451	OE1	GLN	446	27.635	35.107	21.936	1.00	43.39
	atom	3452	NE2	GLN	446	28.255	35.979	19.988	1.00	45.27

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	atom	3453	C	GLN	446	30.012	31.892	19.910	1.00	42.67
	atom	3454	O	GLN	446	29.327	30.859	19.825	1.00	43.84
	atom	3455	N	ILE	447	30.898	32.024	20.886	1.00	41.53
	atom	3456	CA	ILE	447	31.032	31.021	21.929	1.00	40.30
5	atom	3457	CB	ILE	447	32.051	29.891	21.713	1.00	40.47
	atom	3458	CG2	ILE	447	31.552	28.861	20.705	1.00	39.77
	atom	3459	CG1	ILE	447	33.440	30.427	21.389	1.00	39.57
	atom	3460	CD1	ILE	447	33.685	30.920	19.996	1.00	40.48
	atom	3461	C	ILE	447	31.408	31.727	23.223	1.00	39.41
10	atom	3462	O	ILE	447	31.999	32.798	23.212	1.00	39.16
	atom	3463	N	TYR	448	31.073	31.137	24.359	1.00	39.67
	atom	3464	CA	TYR	448	31.466	31.676	25.653	1.00	39.46
	atom	3465	CB	TYR	448	33.007	31.643	25.737	1.00	38.64
	atom	3466	CG	TYR	448	33.647	30.295	25.515	1.00	38.93
15	atom	3467	CD1	TYR	448	34.700	30.155	24.619	1.00	39.13
	atom	3468	CE1	TYR	448	35.313	28.935	24.400	1.00	38.68
	atom	3469	CD2	TYR	448	33.212	29.157	26.183	1.00	38.79
	atom	3470	CE2	TYR	448	33.805	27.926	25.966	1.00	38.91
	atom	3471	CZ	TYR	448	34.859	27.822	25.079	1.00	39.40
20	atom	3472	OH	TYR	448	35.460	26.601	24.858	1.00	39.03
	atom	3473	C	TYR	448	30.974	33.086	25.922	1.00	39.40
	atom	3474	O	TYR	448	31.612	33.799	26.696	1.00	40.07
	atom	3475	N	GLY	449	29.915	33.592	25.325	1.00	39.80
	atom	3476	CA	GLY	449	29.375	34.913	25.522	1.00	38.64
25	atom	3477	C	GLY	449	29.961	35.996	24.628	1.00	38.76
	atom	3478	O	GLY	449	29.835	37.194	24.924	1.00	38.25
	atom	3479	N	ALA	450	30.620	35.624	23.533	1.00	37.18
	atom	3480	CA	ALA	450	31.200	36.663	22.683	1.00	36.32
	atom	3481	CB	ALA	450	32.585	37.062	23.178	1.00	33.02
30	atom	3482	C	ALA	450	31.256	36.202	21.240	1.00	35.61
	atom	3483	O	ALA	450	31.083	35.018	20.954	1.00	35.49
	atom	3484	N	CYS	451	31.467	37.162	20.358	1.00	35.26
	atom	3485	CA	CYS	451	31.528	36.843	18.934	1.00	35.47
	atom	3486	CB	CYS	451	30.456	37.655	18.206	1.00	34.25
35	atom	3487	SG	CYS	451	30.741	37.592	16.427	1.00	37.71
	atom	3488	C	CYS	451	32.921	37.117	18.389	1.00	34.76

	atom	3489	O	CYS	451	33.288	38.268	18.157	1.00	36.59
	atom	3490	N	TYR	452	33.692	36.067	18.185	1.00	33.75
	atom	3491	CA	TYR	452	35.056	36.168	17.720	1.00	32.90
	atom	3492	CB	TYR	452	35.852	34.982	18.285	1.00	31.76
5	atom	3493	CG	TYR	452	35.885	34.950	19.800	1.00	28.83
	atom	3494	CD1	TYR	452	34.908	34.268	20.507	1.00	28.43
	atom	3495	CE1	TYR	452	34.930	34.222	21.886	1.00	28.50
	atom	3496	CD2	TYR	452	36.894	35.581	20.504	1.00	27.11
	atom	3497	CE2	TYR	452	36.920	35.535	21.885	1.00	27.18
10	atom	3498	CZ	TYR	452	35.941	34.867	22.576	1.00	27.44
	atom	3499	OH	TYR	452	35.932	34.813	23.947	1.00	25.41
	atom	3500	C	TYR	452	35.150	36.126	16.207	1.00	33.41
	atom	3501	O	TYR	452	34.240	35.660	15.538	1.00	33.73
	atom	3502	N	SER	453	36.255	36.607	15.680	1.00	34.36
15	atom	3503	CA	SER	453	36.549	36.586	14.251	1.00	35.61
	atom	3504	CB	SER	453	36.925	37.986	13.786	1.00	35.91
	atom	3505	OG	SER	453	37.250	38.064	12.411	1.00	36.63
	atom	3506	C	SER	453	37.701	35.583	14.110	1.00	36.38
	atom	3507	O	SER	453	38.862	35.929	14.338	1.00	35.69
20	atom	3508	N	ILE	454	37.348	34.322	13.887	1.00	37.63
	atom	3509	CA	ILE	454	38.331	33.259	13.838	1.00	39.19
	atom	3510	CB	ILE	454	37.801	31.916	14.403	1.00	37.03
	atom	3511	CG2	ILE	454	38.991	30.979	14.567	1.00	35.02
	atom	3512	CG1	ILE	454	37.017	32.115	15.690	1.00	36.38
25	atom	3513	CD1	ILE	454	37.851	32.260	16.947	1.00	37.92
	atom	3514	C	ILE	454	38.851	32.899	12.451	1.00	40.53
	atom	3515	O	ILE	454	38.103	32.582	11.538	1.00	41.20
	atom	3516	N	GLU	455	40.160	32.861	12.366	1.00	41.69
	atom	3517	CA	GLU	455	40.881	32.416	11.193	1.00	44.47
30	atom	3518	CB	GLU	455	42.188	33.187	11.015	1.00	48.56
	atom	3519	CG	GLU	455	42.150	34.392	10.086	1.00	52.12
	atom	3520	CD	GLU	455	43.543	34.611	9.521	1.00	56.68
	atom	3521	OE1	GLU	455	44.388	35.188	10.244	1.00	58.40
	atom	3522	OE2	GLU	455	43.782	34.166	8.375	1.00	60.39
35	atom	3523	C	GLU	455	41.199	30.936	11.444	1.00	44.83
	atom	3524	O	GLU	455	42.018	30.583	12.301	1.00	44.62

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	atom	3525	N	PRO	456	40.581	30.058	10.673	1.00	44.97
	atom	3526	CD	PRO	456	39.603	30.411	9.606	1.00	45.05
	atom	3527	CA	PRO	456	40.764	28.624	10.774	1.00	44.55
	atom	3528	CB	PRO	456	40.160	28.098	9.480	1.00	45.22
5	atom	3529	CG	PRO	456	39.053	29.066	9.194	1.00	45.06
	atom	3530	C	PRO	456	42.189	28.185	10.983	1.00	44.28
	atom	3531	O	PRO	456	42.397	27.354	11.898	1.00	44.46
	atom	3532	N	LEU	457	43.188	28.741	10.304	1.00	43.11
	atom	3533	CA	LEU	457	44.572	28.349	10.543	1.00	43.63
10	atom	3534	CB	LEU	457	45.551	29.021	9.585	1.00	44.67
	atom	3535	CG	LEU	457	45.479	28.781	8.078	1.00	47.11
	atom	3536	CD1	LEU	457	46.808	29.205	7.444	1.00	46.61
	atom	3537	CD2	LEU	457	45.163	27.350	7.676	1.00	43.88
	atom	3538	C	LEU	457	45.024	28.584	11.982	1.00	43.53
15	atom	3539	O	LEU	457	46.041	28.003	12.380	1.00	43.75
	atom	3540	N	ASP	458	44.353	29.408	12.783	1.00	42.96
	atom	3541	CA	ASP	458	44.663	29.687	14.167	1.00	42.35
	atom	3542	CB	ASP	458	44.172	31.069	14.602	1.00	44.51
	atom	3543	CG	ASP	458	44.890	32.253	14.012	1.00	46.77
20	atom	3544	OD1	ASP	458	44.274	33.342	14.026	1.00	44.23
	atom	3545	OD2	ASP	458	46.041	32.104	13.540	1.00	50.02
	atom	3546	C	ASP	458	44.050	28.702	15.170	1.00	40.56
	atom	3547	O	ASP	458	44.234	28.828	16.382	1.00	39.59
	atom	3548	N	LEU	459	43.391	27.656	14.682	1.00	39.30
25	atom	3549	CA	LEU	459	42.796	26.659	15.562	1.00	38.56
	atom	3550	CB	LEU	459	41.941	25.671	14.768	1.00	37.86
	atom	3551	CG	LEU	459	40.505	26.131	14.468	1.00	36.40
	atom	3552	CD1	LEU	459	39.827	25.198	13.490	1.00	33.38
	atom	3553	CD2	LEU	459	39.722	26.195	15.770	1.00	37.56
30	atom	3554	C	LEU	459	43.795	25.999	16.489	1.00	37.68
	atom	3555	O	LEU	459	43.568	25.891	17.699	1.00	38.33
	atom	3556	N	PRO	460	44.935	25.539	16.006	1.00	37.27
	atom	3557	CD	PRO	460	45.316	25.525	14.567	1.00	36.60
	atom	3558	CA	PRO	460	45.941	24.882	16.839	1.00	36.11
35	atom	3559	CB	PRO	460	47.120	24.723	15.892	1.00	36.11
	atom	3560	CG	PRO	460	46.477	24.562	14.547	1.00	36.19

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	atom	3561	C	PRO	460	46.260	25.678	18.094	1.00	35.64
	atom	3562	O	PRO	460	46.056	25.226	19.231	1.00	34.15
	atom	3563	N	GLN	461	46.664	26.930	17.921	1.00	34.71
	atom	3564	CA	GLN	461	46.981	27.870	18.981	1.00	34.49
5	atom	3565	CB	GLN	461	47.385	29.234	18.411	1.00	37.19
	atom	3566	CG	GLN	461	48.678	29.289	17.644	1.00	42.71
	atom	3567	CD	GLN	461	48.711	28.716	16.252	1.00	46.47
	atom	3568	OE1	GLN	461	47.741	28.233	15.661	1.00	47.17
	atom	3569	NE2	GLN	461	49.918	28.771	15.673	1.00	50.40
10	atom	3570	C	GLN	461	45.805	28.064	19.931	1.00	33.26
	atom	3571	O	GLN	461	45.987	28.078	21.139	1.00	31.57
	atom	3572	N	ILE	462	44.600	28.207	19.375	1.00	33.31
	atom	3573	CA	ILE	462	43.408	28.391	20.184	1.00	33.76
	atom	3574	CB	ILE	462	42.144	28.634	19.334	1.00	32.59
15	atom	3575	CG2	ILE	462	40.905	28.713	20.233	1.00	29.28
	atom	3576	CG1	ILE	462	42.289	29.915	18.508	1.00	31.43
	atom	3577	CD1	ILE	462	41.063	30.303	17.701	1.00	29.76
	atom	3578	C	ILE	462	43.176	27.188	21.096	1.00	34.55
	atom	3579	O	ILE	462	42.887	27.342	22.277	1.00	34.73
20	atom	3580	N	ILE	463	43.286	25.992	20.540	1.00	35.09
	atom	3581	CA	ILE	463	43.073	24.740	21.240	1.00	35.34
	atom	3582	CB	ILE	463	43.069	23.538	20.273	1.00	35.06
	atom	3583	CG2	ILE	463	42.964	22.227	21.031	1.00	33.17
	atom	3584	CG1	ILE	463	41.877	23.675	19.312	1.00	36.76
25	atom	3585	CD1	ILE	463	41.867	22.660	18.197	1.00	39.18
	atom	3586	C	ILE	463	44.113	24.526	22.319	1.00	36.01
	atom	3587	O	ILE	463	43.777	24.231	23.467	1.00	35.95
	atom	3588	N	GLU	464	45.381	24.702	21.949	1.00	37.00
	atom	3589	CA	GLU	464	46.456	24.568	22.925	1.00	37.43
30	atom	3590	CB	GLU	464	47.806	24.917	22.317	1.00	38.60
	atom	3591	CG	GLU	464	48.920	24.864	23.360	1.00	41.71
	atom	3592	CD	GLU	464	50.299	24.996	22.750	1.00	44.48
	atom	3593	OE1	GLU	464	51.268	24.581	23.420	1.00	45.93
	atom	3594	OE2	GLU	464	50.393	25.530	21.625	1.00	48.22
35	atom	3595	C	GLU	464	46.147	25.458	24.129	1.00	37.41
	atom	3596	O	GLU	464	46.145	24.962	25.256	1.00	37.72

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	atom	3597	N	ARG	465	45.850	26.742	23.922	1.00	36.60
	atom	3598	CA	ARG	465	45.519	27.615	25.039	1.00	35.75
	atom	3599	CB	ARG	465	45.218	29.042	24.539	1.00	35.82
	atom	3600	CG	ARG	465	44.903	30.014	25.661	1.00	36.22
5	atom	3601	CD	ARG	465	44.797	31.472	25.199	1.00	38.45
	atom	3602	NE	ARG	465	43.394	31.752	24.826	1.00	40.96
	atom	3603	CZ	ARG	465	43.053	31.978	23.572	1.00	42.01
	atom	3604	NH1	ARG	465	43.993	31.996	22.637	1.00	43.70
	atom	3605	NH2	ARG	465	41.798	32.204	23.243	1.00	45.58
10	atom	3606	C	ARG	465	44.336	27.123	25.872	1.00	35.17
	atom	3607	O	ARG	465	44.441	26.992	27.101	1.00	33.72
	atom	3608	N	LEU	466	43.187	26.925	25.223	1.00	34.52
	atom	3609	CA	LEU	466	41.968	26.550	25.926	1.00	35.25
	atom	3610	CB	LEU	466	40.750	26.496	25.000	1.00	35.10
15	atom	3611	CG	LEU	466	39.795	27.671	24.914	1.00	37.89
	atom	3612	CD1	LEU	466	40.459	28.994	25.243	1.00	38.07
	atom	3613	CD2	LEU	466	39.173	27.701	23.519	1.00	37.66
	atom	3614	C	LEU	466	41.993	25.184	26.603	1.00	34.72
	atom	3615	O	LEU	466	41.528	25.044	27.729	1.00	34.79
20	atom	3616	N	HIS	467	42.463	24.179	25.874	1.00	33.92
	atom	3617	CA	HIS	467	42.414	22.811	26.347	1.00	33.47
	atom	3618	CB	HIS	467	41.734	21.976	25.247	1.00	29.00
	atom	3619	CG	HIS	467	40.371	22.489	24.880	1.00	28.00
	atom	3620	CD2	HIS	467	39.942	23.186	23.800	1.00	26.55
25	atom	3621	ND1	HIS	467	39.276	22.271	25.690	1.00	25.73
	atom	3622	CE1	HIS	467	38.219	22.825	25.137	1.00	27.97
	atom	3623	NE2	HIS	467	38.592	23.383	24.000	1.00	29.28
	atom	3624	C	HIS	467	43.760	22.202	26.691	1.00	34.43
	atom	3625	O	HIS	467	43.743	21.148	27.339	1.00	35.64
30	atom	3626	N	GLY	468	44.878	22.756	26.249	1.00	34.10
	atom	3627	CA	GLY	468	46.182	22.173	26.545	1.00	34.44
	atom	3628	C	GLY	468	46.705	21.345	25.387	1.00	35.99
	atom	3629	O	GLY	468	45.930	20.992	24.488	1.00	36.47
	atom	3630	N	LEU	469	47.978	20.973	25.424	1.00	36.54
35	atom	3631	CA	LEU	469	48.594	20.155	24.394	1.00	37.94
	atom	3632	CB	LEU	469	50.105	19.992	24.581	1.00	40.90

5	atom	3633	CG	LEU	469	51.000	20.752	23.593	1.00	44.36
	atom	3634	CD1	LEU	469	52.446	20.372	23.899	1.00	44.83
	atom	3635	CD2	LEU	469	50.649	20.480	22.138	1.00	45.03
	atom	3636	C	LEU	469	47.972	18.767	24.289	1.00	37.18
	atom	3637	O	LEU	469	47.933	18.171	23.211	1.00	36.97
	atom	3638	N	SER	470	47.435	18.257	25.379	1.00	36.51
	atom	3639	CA	SER	470	46.740	16.998	25.486	1.00	36.48
10	atom	3640	CB	SER	470	45.960	16.903	26.827	1.00	36.67
	atom	3641	OG	SER	470	46.874	16.732	27.882	1.00	39.61
	atom	3642	C	SER	470	45.649	16.788	24.451	1.00	35.35
	atom	3643	O	SER	470	45.399	15.659	24.063	1.00	35.11
	atom	3644	N	ALA	471	44.966	17.855	24.064	1.00	35.05
	atom	3645	CA	ALA	471	43.858	17.844	23.136	1.00	34.63
	atom	3646	CB	ALA	471	43.347	19.273	22.991	1.00	34.42
15	atom	3647	C	ALA	471	44.199	17.265	21.770	1.00	34.75
	atom	3648	O	ALA	471	43.316	16.790	21.053	1.00	32.98
	atom	3649	N	PHE	472	45.472	17.321	21.390	1.00	35.04
	atom	3650	CA	PHE	472	45.940	16.786	20.120	1.00	35.55
	atom	3651	CB	PHE	472	47.092	17.610	19.551	1.00	31.23
	atom	3652	CG	PHE	472	46.816	19.088	19.501	1.00	30.69
	atom	3653	CD1	PHE	472	47.598	19.981	20.207	1.00	30.16
20	atom	3654	CD2	PHE	472	45.765	19.599	18.755	1.00	31.14
	atom	3655	CE1	PHE	472	47.355	21.344	20.184	1.00	28.80
	atom	3656	CE2	PHE	472	45.497	20.957	18.714	1.00	28.67
	atom	3657	CZ	PHE	472	46.292	21.824	19.437	1.00	29.04
	atom	3658	C	PHE	472	46.340	15.314	20.267	1.00	36.50
	atom	3659	O	PHE	472	46.537	14.686	19.219	1.00	35.70
	atom	3660	N	SER	473	46.369	14.770	21.487	1.00	36.44
30	atom	3661	CA	SER	473	46.748	13.368	21.622	1.00	38.23
	atom	3662	CB	SER	473	48.225	13.303	22.022	1.00	40.10
	atom	3663	OG	SER	473	48.393	13.779	23.348	1.00	46.11
	atom	3664	C	SER	473	45.900	12.529	22.560	1.00	38.78
	atom	3665	O	SER	473	46.360	11.505	23.084	1.00	38.86
	atom	3666	N	LEU	474	44.635	12.899	22.777	1.00	38.71
	atom	3667	CA	LEU	474	43.788	12.081	23.640	1.00	38.23
35	atom	3668	CB	LEU	474	42.444	12.736	23.955	1.00	38.44

5	atom	3669	CG	LEU	474	42.432	13.960	24.870	1.00	37.75
	atom	3670	CD1	LEU	474	41.010	14.217	25.352	1.00	36.16
	atom	3671	CD2	LEU	474	43.409	13.792	26.021	1.00	37.63
	atom	3672	C	LEU	474	43.498	10.745	22.955	1.00	37.76
	atom	3673	O	LEU	474	43.158	10.727	21.769	1.00	37.19
	atom	3674	N	HIS	475	43.568	9.667	23.727	1.00	37.51
	atom	3675	CA	HIS	475	43.260	8.340	23.194	1.00	37.77
	atom	3676	CB	HIS	475	44.501	7.683	22.580	1.00	37.30
10	atom	3677	CG	HIS	475	45.594	7.421	23.568	1.00	40.33
	atom	3678	CD2	HIS	475	46.460	8.285	24.161	1.00	40.72
	atom	3679	ND1	HIS	475	45.879	6.174	24.083	1.00	40.30
	atom	3680	CE1	HIS	475	46.875	6.273	24.939	1.00	40.48
	atom	3681	NE2	HIS	475	47.249	7.544	25.001	1.00	42.00
	atom	3682	C	HIS	475	42.630	7.490	24.284	1.00	37.42
	atom	3683	O	HIS	475	42.581	7.918	25.434	1.00	38.45
	atom	3684	N	SER	476	42.142	6.298	23.967	1.00	37.76
20	atom	3685	CA	SER	476	41.491	5.438	24.959	1.00	37.80
	atom	3686	CB	SER	476	42.433	5.097	26.116	1.00	40.05
	atom	3687	OG	SER	476	43.482	4.263	25.659	1.00	43.86
	atom	3688	C	SER	476	40.241	6.126	25.503	1.00	36.36
	atom	3689	O	SER	476	40.149	6.431	26.683	1.00	36.19
	atom	3690	N	TYR	477	39.312	6.451	24.605	1.00	36.30
	atom	3691	CA	TYR	477	38.109	7.144	25.090	1.00	35.98
	atom	3692	CB	TYR	477	37.364	7.774	23.938	1.00	36.13
25	atom	3693	CG	TYR	477	38.026	9.024	23.395	1.00	36.38
	atom	3694	CD1	TYR	477	38.850	8.974	22.272	1.00	36.65
	atom	3695	CE1	TYR	477	39.446	10.116	21.765	1.00	35.66
	atom	3696	CD2	TYR	477	37.813	10.253	24.001	1.00	35.64
	atom	3697	CE2	TYR	477	38.398	11.407	23.508	1.00	35.23
	atom	3698	CZ	TYR	477	39.211	11.329	22.390	1.00	35.78
	atom	3699	OH	TYR	477	39.781	12.464	21.868	1.00	34.59
	atom	3700	C	TYR	477	37.292	6.187	25.943	1.00	35.06
30	atom	3701	O	TYR	477	37.581	4.987	25.951	1.00	35.38
	atom	3702	N	SER	478	36.359	6.709	26.727	1.00	33.69
	atom	3703	CA	SER	478	35.592	5.819	27.592	1.00	34.09
	atom	3704	CB	SER	478	34.759	6.606	28.601	1.00	31.64

5	atom	3705	OG	SER	478	33.497	6.926	28.014	1.00	32.51
	atom	3706	C	SER	478	34.660	4.977	26.725	1.00	34.36
	atom	3707	O	SER	478	34.236	5.436	25.661	1.00	35.61
	atom	3708	N	PRO	479	34.237	3.831	27.223	1.00	33.74
	atom	3709	CD	PRO	479	34.701	3.244	28.497	1.00	32.80
	atom	3710	CA	PRO	479	33.288	2.991	26.508	1.00	33.95
	atom	3711	CB	PRO	479	33.119	1.768	27.408	1.00	34.67
	atom	3712	CG	PRO	479	34.177	1.836	28.453	1.00	33.60
10	atom	3713	C	PRO	479	31.956	3.688	26.292	1.00	33.96
	atom	3714	O	PRO	479	31.253	3.562	25.290	1.00	33.03
	atom	3715	N	GLY	480	31.552	4.482	27.289	1.00	34.92
	atom	3716	CA	GLY	480	30.307	5.242	27.212	1.00	35.23
15	atom	3717	C	GLY	480	30.400	6.363	26.186	1.00	35.24
	atom	3718	O	GLY	480	29.379	6.709	25.586	1.00	35.04
	atom	3719	N	GLU	481	31.585	6.952	26.001	1.00	35.30
	atom	3720	CA	GLU	481	31.690	8.030	25.019	1.00	35.54
	atom	3721	CB	GLU	481	32.972	8.831	25.215	1.00	35.88
	atom	3722	CG	GLU	481	33.268	9.885	24.163	1.00	34.94
	atom	3723	CD	GLU	481	32.232	11.007	24.180	1.00	34.98
	atom	3724	OE1	GLU	481	31.452	11.065	25.160	1.00	32.21
20	atom	3725	OE2	GLU	481	32.225	11.777	23.200	1.00	32.43
	atom	3726	C	GLU	481	31.614	7.461	23.605	1.00	35.55
	atom	3727	O	GLU	481	30.925	8.051	22.781	1.00	34.27
	atom	3728	N	ILE	482	32.317	6.353	23.374	1.00	36.28
25	atom	3729	CA	ILE	482	32.407	5.709	22.085	1.00	37.35
	atom	3730	CB	ILE	482	33.419	4.549	21.948	1.00	37.89
	atom	3731	CG2	ILE	482	33.741	4.426	20.453	1.00	36.99
	atom	3732	CG1	ILE	482	34.658	4.693	22.794	1.00	38.17
30	atom	3733	CD1	ILE	482	36.025	4.800	22.191	1.00	38.99
	atom	3734	C	ILE	482	31.079	5.097	21.637	1.00	37.71
	atom	3735	O	ILE	482	30.740	5.217	20.454	1.00	38.60
	atom	3736	N	ASN	483	30.367	4.460	22.556	1.00	37.73
35	atom	3737	CA	ASN	483	29.071	3.897	22.197	1.00	39.00
	atom	3738	CB	ASN	483	28.424	3.106	23.334	1.00	41.02
	atom	3739	CG	ASN	483	29.210	1.827	23.571	1.00	45.51
	atom	3740	OD1	ASN	483	30.096	1.472	22.784	1.00	46.90

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	atom	3741	ND2	ASN	483	28.889	1.132	24.661	1.00	46.77
	atom	3742	C	ASN	483	28.147	5.043	21.784	1.00	39.05
	atom	3743	O	ASN	483	27.505	4.994	20.735	1.00	38.87
	atom	3744	N	ARG	484	28.155	6.095	22.613	1.00	38.40
5	atom	3745	CA	ARG	484	27.349	7.255	22.278	1.00	38.84
	atom	3746	CB	ARG	484	27.479	8.344	23.343	1.00	40.82
	atom	3747	CG	ARG	484	26.799	9.614	22.844	1.00	42.50
	atom	3748	CD	ARG	484	25.959	10.288	23.876	1.00	42.60
	atom	3749	NE	ARG	484	26.583	11.008	24.952	1.00	42.33
10	atom	3750	CZ	ARG	484	27.701	11.690	25.012	1.00	41.12
	atom	3751	NH1	ARG	484	28.509	11.781	23.950	1.00	43.84
	atom	3752	NH2	ARG	484	28.032	12.297	26.138	1.00	37.04
	atom	3753	C	ARG	484	27.686	7.803	20.897	1.00	38.60
	atom	3754	O	ARG	484	26.789	8.029	20.078	1.00	38.46
15	atom	3755	N	VAL	485	28.969	7.996	20.612	1.00	38.59
	atom	3756	CA	VAL	485	29.357	8.502	19.283	1.00	38.77
	atom	3757	CB	VAL	485	30.857	8.807	19.242	1.00	36.16
	atom	3758	CG1	VAL	485	31.389	9.192	17.864	1.00	34.71
	atom	3759	CG2	VAL	485	31.158	9.959	20.206	1.00	31.73
20	atom	3760	C	VAL	485	28.887	7.519	18.215	1.00	39.78
	atom	3761	O	VAL	485	28.219	7.862	17.233	1.00	38.77
	atom	3762	N	ALA	486	29.167	6.235	18.461	1.00	40.74
	atom	3763	CA	ALA	486	28.772	5.182	17.535	1.00	41.87
	atom	3764	CB	ALA	486	29.312	3.827	17.986	1.00	42.62
25	atom	3765	C	ALA	486	27.276	5.134	17.270	1.00	41.60
	atom	3766	O	ALA	486	26.905	5.147	16.084	1.00	41.71
	atom	3767	N	SER	487	26.399	5.115	18.258	1.00	41.77
	atom	3768	CA	SER	487	24.967	5.107	17.968	1.00	43.22
	atom	3769	CB	SER	487	24.135	5.074	19.245	1.00	42.82
30	atom	3770	OG	SER	487	24.545	3.971	20.033	1.00	46.12
	atom	3771	C	SER	487	24.540	6.329	17.158	1.00	43.66
	atom	3772	O	SER	487	23.755	6.239	16.215	1.00	43.73
	atom	3773	N	CYS	488	25.054	7.497	17.540	1.00	44.01
	atom	3774	CA	CYS	488	24.702	8.721	16.835	1.00	44.25
35	atom	3775	CB	CYS	488	25.309	9.946	17.528	1.00	43.28
	atom	3776	SG	CYS	488	25.270	11.403	16.453	1.00	42.10

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	atom	3777	C	CYS	488	25.052	8.675	15.359	1.00	44.54
	atom	3778	O	CYS	488	24.179	9.014	14.550	1.00	44.72
	atom	3779	N	LEU	489	26.225	8.237	14.917	1.00	45.01
	atom	3780	CA	LEU	489	26.509	8.191	13.476	1.00	46.07
5	atom	3781	CB	LEU	489	27.963	7.817	13.202	1.00	43.99
	atom	3782	CG	LEU	489	29.051	8.405	14.094	1.00	43.82
	atom	3783	CD1	LEU	489	30.450	8.039	13.615	1.00	43.66
	atom	3784	CD2	LEU	489	28.942	9.919	14.209	1.00	44.41
	atom	3785	C	LEU	489	25.540	7.276	12.722	1.00	46.87
10	atom	3786	O	LEU	489	25.108	7.508	11.584	1.00	46.37
	atom	3787	N	ARG	490	25.124	6.175	13.334	1.00	47.14
	atom	3788	CA	ARG	490	24.172	5.262	12.731	1.00	48.42
	atom	3789	CB	ARG	490	24.184	3.965	13.499	1.00	53.51
	atom	3790	CG	ARG	490	23.083	2.962	13.264	1.00	58.98
15	atom	3791	CD	ARG	490	23.493	1.566	13.716	1.00	63.38
	atom	3792	NE	ARG	490	24.510	1.577	14.766	1.00	66.17
	atom	3793	CZ	ARG	490	25.824	1.613	14.539	1.00	67.77
	atom	3794	NH1	ARG	490	26.251	1.655	13.276	1.00	69.19
	atom	3795	NH2	ARG	490	26.670	1.644	15.555	1.00	66.89
20	atom	3796	C	ARG	490	22.758	5.835	12.727	1.00	48.18
	atom	3797	O	ARG	490	21.978	5.570	11.815	1.00	47.75
	atom	3798	N	LYS	491	22.418	6.589	13.769	1.00	47.22
	atom	3799	CA	LYS	491	21.102	7.205	13.839	1.00	46.99
	atom	3800	CB	LYS	491	20.900	7.863	15.201	1.00	45.67
25	atom	3801	CG	LYS	491	19.700	8.772	15.298	1.00	45.31
	atom	3802	CD	LYS	491	19.565	9.410	16.666	1.00	45.09
	atom	3803	CE	LYS	491	20.473	10.619	16.855	1.00	43.15
	atom	3804	NZ	LYS	491	20.243	11.164	18.222	1.00	43.58
	atom	3805	C	LYS	491	20.932	8.205	12.702	1.00	47.27
30	atom	3806	O	LYS	491	19.893	8.205	12.042	1.00	47.59
	atom	3807	N	LEU	492	21.935	9.037	12.468	1.00	47.21
	atom	3808	CA	LEU	492	21.923	10.087	11.474	1.00	47.23
	atom	3809	CB	LEU	492	22.829	11.240	11.946	1.00	46.23
	atom	3810	CG	LEU	492	22.352	12.072	13.133	1.00	45.72
35	atom	3811	CD1	LEU	492	23.450	13.020	13.593	1.00	43.60
	atom	3812	CD2	LEU	492	21.109	12.865	12.739	1.00	45.44

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	atom	3813	C	LEU	492	22.431	9.666	10.104	1.00	47.38
	atom	3814	O	LEU	492	22.251	10.381	9.114	1.00	46.71
	atom	3815	N	GLY	493	23.056	8.491	10.036	1.00	47.59
	atom	3816	CA	GLY	493	23.591	8.012	8.768	1.00	47.06
5	atom	3817	C	GLY	493	24.921	8.674	8.439	1.00	46.76
	atom	3818	O	GLY	493	25.206	8.964	7.280	1.00	46.08
	atom	3819	N	VAL	494	25.707	8.961	9.474	1.00	47.09
	atom	3820	CA	VAL	494	27.032	9.556	9.293	1.00	47.18
	atom	3821	CB	VAL	494	27.495	10.370	10.507	1.00	46.34
10	atom	3822	CG1	VAL	494	28.997	10.648	10.470	1.00	43.87
	atom	3823	CG2	VAL	494	26.735	11.688	10.581	1.00	47.90
	atom	3824	C	VAL	494	28.000	8.389	9.091	1.00	47.52
	atom	3825	O	VAL	494	27.932	7.432	9.858	1.00	47.68
	atom	3826	N	PRO	495	28.880	8.477	8.114	1.00	47.74
15	atom	3827	CD	PRO	495	28.995	9.604	7.155	1.00	47.61
	atom	3828	CA	PRO	495	29.851	7.433	7.841	1.00	47.62
	atom	3829	CB	PRO	495	30.759	8.054	6.785	1.00	47.97
	atom	3830	CG	PRO	495	29.904	9.053	6.086	1.00	47.82
	atom	3831	C	PRO	495	30.625	7.022	9.082	1.00	47.21
20	atom	3832	O	PRO	495	30.830	7.827	9.980	1.00	46.61
	atom	3833	N	PRO	496	31.029	5.759	9.143	1.00	47.01
	atom	3834	CD	PRO	496	30.776	4.743	8.089	1.00	47.33
	atom	3835	CA	PRO	496	31.734	5.200	10.273	1.00	46.21
	atom	3836	CB	PRO	496	31.851	3.711	9.978	1.00	46.28
25	atom	3837	CG	PRO	496	31.428	3.486	8.586	1.00	46.45
	atom	3838	C	PRO	496	33.069	5.857	10.527	1.00	45.68
	atom	3839	O	PRO	496	33.679	6.448	9.638	1.00	45.35
	atom	3840	N	LEU	497	33.566	5.742	11.760	1.00	45.61
	atom	3841	CA	LEU	497	34.830	6.381	12.131	1.00	46.17
30	atom	3842	CB	LEU	497	35.158	6.121	13.606	1.00	43.27
	atom	3843	CG	LEU	497	34.225	6.791	14.622	1.00	43.92
	atom	3844	CD1	LEU	497	34.596	6.429	16.050	1.00	41.06
	atom	3845	CD2	LEU	497	34.170	8.310	14.444	1.00	42.48
	atom	3846	C	LEU	497	35.972	6.025	11.200	1.00	46.46
35	atom	3847	O	LEU	497	36.692	6.901	10.708	1.00	45.97
	atom	3848	N	ARG	498	36.124	4.755	10.843	1.00	47.30

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	atom	3849	CA	ARG	498	37.144	4.272	9.929	1.00	48.11
	atom	3850	CB	ARG	498	36.992	2.785	9.584	1.00	51.88
	atom	3851	CG	ARG	498	35.717	2.430	8.839	1.00	57.02
	atom	3852	CD	ARG	498	35.984	1.523	7.642	1.00	61.13
5	atom	3853	NE	ARG	498	34.954	1.650	6.611	1.00	64.83
	atom	3854	CZ	ARG	498	35.181	1.655	5.300	1.00	66.68
	atom	3855	NH1	ARG	498	36.430	1.545	4.847	1.00	67.69
	atom	3856	NH2	ARG	498	34.177	1.779	4.438	1.00	66.19
	atom	3857	C	ARG	498	37.183	5.102	8.652	1.00	47.74
10	atom	3858	O	ARG	498	38.256	5.436	8.156	1.00	46.89
	atom	3859	N	VAL	499	36.030	5.476	8.109	1.00	48.10
	atom	3860	CA	VAL	499	35.943	6.324	6.935	1.00	48.56
	atom	3861	CB	VAL	499	34.507	6.462	6.409	1.00	47.28
	atom	3862	CG1	VAL	499	34.405	7.452	5.256	1.00	46.95
15	atom	3863	CG2	VAL	499	33.988	5.108	5.948	1.00	48.25
	atom	3864	C	VAL	499	36.501	7.712	7.248	1.00	49.53
	atom	3865	O	VAL	499	37.173	8.297	6.401	1.00	49.62
	atom	3866	N	TRP	500	36.247	8.228	8.444	1.00	49.80
	atom	3867	CA	TRP	500	36.757	9.534	8.836	1.00	50.62
20	atom	3868	CB	TRP	500	36.070	10.018	10.119	1.00	46.52
	atom	3869	CG	TRP	500	34.621	10.275	9.788	1.00	43.97
	atom	3870	CD2	TRP	500	34.146	11.353	8.973	1.00	42.23
	atom	3871	CE2	TRP	500	32.750	11.220	8.895	1.00	41.89
	atom	3872	CE3	TRP	500	34.767	12.408	8.300	1.00	40.14
25	atom	3873	CD1	TRP	500	33.530	9.551	10.154	1.00	42.81
	atom	3874	NE1	TRP	500	32.402	10.116	9.628	1.00	41.50
	atom	3875	CZ2	TRP	500	31.956	12.118	8.176	1.00	40.95
	atom	3876	CZ3	TRP	500	33.983	13.285	7.588	1.00	39.46
	atom	3877	CH2	TRP	500	32.593	13.139	7.545	1.00	40.26
30	atom	3878	C	TRP	500	38.269	9.505	8.995	1.00	52.27
	atom	3879	O	TRP	500	38.946	10.476	8.651	1.00	52.08
	atom	3880	N	ARG	501	38.791	8.383	9.481	1.00	53.66
	atom	3881	CA	ARG	501	40.240	8.261	9.630	1.00	56.13
	atom	3882	CB	ARG	501	40.612	7.000	10.394	1.00	58.21
35	atom	3883	CG	ARG	501	42.084	6.671	10.455	1.00	61.79
	atom	3884	CD	ARG	501	42.450	5.602	11.473	1.00	65.38

5	atom	3885	NE	ARG	501	43.021	6.144	12.693	1.00	68.34
	atom	3886	CZ	ARG	501	42.416	6.417	13.836	1.00	70.57
	atom	3887	NH1	ARG	501	41.125	6.192	14.025	1.00	70.97
	atom	3888	NH2	ARG	501	43.117	6.920	14.850	1.00	73.20
	atom	3889	C	ARG	501	40.836	8.332	8.229	1.00	57.06
	atom	3890	O	ARG	501	41.706	9.160	7.959	1.00	57.05
	atom	3891	N	HIS	502	40.322	7.513	7.316	1.00	57.67
	atom	3892	CA	HIS	502	40.816	7.509	5.943	1.00	58.89
10	atom	3893	CB	HIS	502	40.032	6.512	5.088	1.00	63.64
	atom	3894	CG	HIS	502	40.363	6.606	3.628	1.00	68.47
	atom	3895	CD2	HIS	502	39.762	7.306	2.630	1.00	70.37
	atom	3896	ND1	HIS	502	41.428	5.947	3.054	1.00	70.00
	atom	3897	CE1	HIS	502	41.470	6.229	1.765	1.00	70.99
	atom	3898	NE2	HIS	502	40.474	7.054	1.482	1.00	71.58
	atom	3899	C	HIS	502	40.787	8.921	5.367	1.00	58.08
	atom	3900	O	HIS	502	41.803	9.460	4.938	1.00	56.95
20	atom	3901	N	ARG	503	39.622	9.565	5.385	1.00	57.67
	atom	3902	CA	ARG	503	39.459	10.931	4.914	1.00	56.62
	atom	3903	CB	ARG	503	38.009	11.378	5.117	1.00	56.48
	atom	3904	CG	ARG	503	37.007	10.605	4.275	1.00	55.58
	atom	3905	CD	ARG	503	35.597	10.718	4.821	1.00	55.36
	atom	3906	NE	ARG	503	34.585	10.491	3.800	1.00	54.08
	atom	3907	CZ	ARG	503	33.308	10.839	3.881	1.00	52.72
	atom	3908	NH1	ARG	503	32.800	11.448	4.942	1.00	49.23
25	atom	3909	NH2	ARG	503	32.512	10.563	2.852	1.00	52.91
	atom	3910	C	ARG	503	40.436	11.880	5.600	1.00	56.16
	atom	3911	O	ARG	503	41.060	12.705	4.935	1.00	55.66
	atom	3912	N	ALA	504	40.646	11.777	6.906	1.00	55.30
30	atom	3913	CA	ALA	504	41.583	12.615	7.629	1.00	55.07
	atom	3914	CB	ALA	504	41.447	12.413	9.129	1.00	53.69
	atom	3915	C	ALA	504	43.030	12.413	7.213	1.00	54.86
	atom	3916	O	ALA	504	43.788	13.389	7.177	1.00	54.46
	atom	3917	N	ARG	505	43.461	11.210	6.857	1.00	55.53
35	atom	3918	CA	ARG	505	44.845	10.991	6.411	1.00	55.59
	atom	3919	CB	ARG	505	45.140	9.501	6.258	1.00	59.45
	atom	3920	CG	ARG	505	45.789	8.844	7.463	1.00	64.44

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	atom	3921	CD	ARG	505	45.470	7.366	7.599	1.00	69.50
	atom	3922	NE	ARG	505	44.829	6.824	6.412	1.00	74.47
	atom	3923	CZ	ARG	505	45.045	5.670	5.799	1.00	76.94
	atom	3924	NH1	ARG	505	45.960	4.813	6.243	1.00	77.57
5	atom	3925	NH2	ARG	505	44.347	5.361	4.706	1.00	77.43
	atom	3926	C	ARG	505	45.154	11.775	5.135	1.00	54.32
	atom	3927	O	ARG	505	46.243	12.330	4.966	1.00	53.78
	atom	3928	N	SER	506	44.185	11.892	4.239	1.00	52.72
	atom	3929	CA	SER	506	44.317	12.647	3.005	1.00	51.71
10	atom	3930	CB	SER	506	43.260	12.149	2.024	1.00	50.67
	atom	3931	OG	SER	506	43.249	12.927	0.853	1.00	52.16
	atom	3932	C	SER	506	44.252	14.145	3.248	1.00	50.97
	atom	3933	O	SER	506	45.169	14.860	2.829	1.00	51.59
	atom	3934	N	VAL	507	43.286	14.664	3.994	1.00	49.34
15	atom	3935	CA	VAL	507	43.197	16.061	4.379	1.00	47.12
	atom	3936	CB	VAL	507	42.101	16.260	5.449	1.00	44.99
	atom	3937	CG1	VAL	507	42.175	17.622	6.114	1.00	43.28
	atom	3938	CG2	VAL	507	40.716	16.067	4.852	1.00	44.53
	atom	3939	C	VAL	507	44.520	16.553	4.972	1.00	46.44
20	atom	3940	O	VAL	507	45.001	17.653	4.720	1.00	45.27
	atom	3941	N	ARG	508	45.104	15.733	5.839	1.00	46.29
	atom	3942	CA	ARG	508	46.356	16.042	6.509	1.00	46.63
	atom	3943	CB	ARG	508	46.661	14.958	7.550	1.00	43.64
	atom	3944	CG	ARG	508	47.975	15.196	8.275	1.00	42.76
25	atom	3945	CD	ARG	508	48.134	14.200	9.417	1.00	45.00
	atom	3946	NE	ARG	508	49.463	13.657	9.418	1.00	48.70
	atom	3947	CZ	ARG	508	50.558	13.872	10.093	1.00	51.92
	atom	3948	NH1	ARG	508	50.587	14.752	11.090	1.00	54.71
	atom	3949	NH2	ARG	508	51.661	13.180	9.803	1.00	53.07
30	atom	3950	C	ARG	508	47.516	16.223	5.538	1.00	46.99
	atom	3951	O	ARG	508	48.231	17.220	5.561	1.00	46.16
	atom	3952	N	ALA	509	47.700	15.254	4.649	1.00	48.12
	atom	3953	CA	ALA	509	48.721	15.312	3.612	1.00	49.64
	atom	3954	CB	ALA	509	48.592	14.137	2.643	1.00	47.77
35	atom	3955	C	ALA	509	48.617	16.638	2.856	1.00	50.08
	atom	3956	O	ALA	509	49.618	17.344	2.716	1.00	50.22

5	atom	3957	N	ARG	510	47.427	16.984	2.380	1.00	50.74
	atom	3958	CA	ARG	510	47.231	18.256	1.697	1.00	53.26
	atom	3959	CB	ARG	510	45.753	18.485	1.424	1.00	55.46
	atom	3960	CG	ARG	510	45.003	17.367	0.725	1.00	58.22
	atom	3961	CD	ARG	510	44.875	17.643	-0.766	1.00	59.92
	atom	3962	NE	ARG	510	44.393	18.999	-1.005	1.00	62.36
	atom	3963	CZ	ARG	510	44.039	19.515	-2.177	1.00	63.88
	atom	3964	NH1	ARG	510	44.099	18.782	-3.288	1.00	65.18
10	atom	3965	NH2	ARG	510	43.619	20.775	-2.257	1.00	62.61
	atom	3966	C	ARG	510	47.757	19.384	2.583	1.00	54.41
	atom	3967	O	ARG	510	48.672	20.119	2.231	1.00	54.05
	atom	3968	N	LEU	511	47.189	19.482	3.787	1.00	55.60
15	atom	3969	CA	LEU	511	47.557	20.485	4.769	1.00	56.78
	atom	3970	CB	LEU	511	46.945	20.190	6.143	1.00	57.30
	atom	3971	CG	LEU	511	45.459	20.494	6.331	1.00	56.59
	atom	3972	CD1	LEU	511	44.974	20.025	7.691	1.00	55.28
20	atom	3973	CD2	LEU	511	45.200	21.984	6.134	1.00	56.40
	atom	3974	C	LEU	511	49.068	20.581	4.920	1.00	57.48
	atom	3975	O	LEU	511	49.639	21.665	4.790	1.00	57.14
	atom	3976	N	LEU	512	49.708	19.443	5.159	1.00	57.98
	atom	3977	CA	LEU	512	51.162	19.414	5.320	1.00	59.96
	atom	3978	CB	LEU	512	51.590	18.003	5.710	1.00	58.43
	atom	3979	CG	LEU	512	52.446	17.788	6.952	1.00	57.85
25	atom	3980	CD1	LEU	512	52.026	18.673	8.115	1.00	57.57
	atom	3981	CD2	LEU	512	52.367	16.327	7.378	1.00	55.60
	atom	3982	C	LEU	512	51.874	19.888	4.062	1.00	61.49
	atom	3983	O	LEU	512	52.890	20.580	4.131	1.00	61.05
30	atom	3984	N	SER	513	51.328	19.601	2.886	1.00	62.99
	atom	3985	CA	SER	513	51.847	19.980	1.592	1.00	65.12
	atom	3986	CB	SER	513	51.074	19.221	0.496	1.00	63.64
	atom	3987	OG	SER	513	50.604	20.093	-0.513	1.00	62.93
	atom	3988	C	SER	513	51.802	21.467	1.270	1.00	66.83
	atom	3989	O	SER	513	52.365	21.894	0.249	1.00	67.21
	atom	3990	N	GLN	514	51.139	22.289	2.075	1.00	67.94
35	atom	3991	CA	GLN	514	51.027	23.695	1.801	1.00	68.91
	atom	3992	CB	GLN	514	49.635	24.216	2.195	1.00	69.72

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	atom	3993	CG	GLN	514	48.698	24.283	1.010	1.00	71.63
	atom	3994	CD	GLN	514	47.839	23.037	0.964	1.00	74.02
	atom	3995	OE1	GLN	514	47.169	22.742	1.959	1.00	75.01
	atom	3996	NE2	GLN	514	47.858	22.324	-0.156	1.00	74.45
5	atom	3997	C	GLN	514	51.944	24.621	2.578	1.00	69.18
	atom	3998	O	GLN	514	52.280	25.666	2.022	1.00	69.39
	atom	3999	N	GLY	515	52.143	24.322	3.868	1.00	69.84
	atom	4000	CA	GLY	515	52.945	25.289	4.548	1.00	69.92
	atom	4001	C	GLY	515	53.413	25.360	5.944	1.00	69.37
10	atom	4002	O	GLY	515	53.972	24.468	6.556	1.00	70.22
	atom	4003	N	GLY	516	53.307	26.608	6.408	1.00	69.09
	atom	4004	CA	GLY	516	53.733	26.988	7.751	1.00	67.75
	atom	4005	C	GLY	516	52.512	26.820	8.659	1.00	66.48
	atom	4006	O	GLY	516	52.546	25.978	9.554	1.00	66.81
15	atom	4007	N	ARG	517	51.452	27.575	8.374	1.00	64.73
	atom	4008	CA	ARG	517	50.259	27.489	9.210	1.00	62.15
	atom	4009	CB	ARG	517	49.533	28.832	9.294	1.00	64.74
	atom	4010	CG	ARG	517	49.849	29.612	10.555	1.00	66.51
	atom	4011	CD	ARG	517	49.537	31.076	10.532	1.00	68.06
20	atom	4012	NE	ARG	517	48.220	31.532	10.908	1.00	69.96
	atom	4013	CZ	ARG	517	47.268	32.018	10.118	1.00	70.48
	atom	4014	NH1	ARG	517	47.472	32.134	8.811	1.00	69.84
	atom	4015	NH2	ARG	517	46.101	32.402	10.634	1.00	69.85
	atom	4016	C	ARG	517	49.341	26.355	8.790	1.00	59.90
25	atom	4017	O	ARG	517	48.717	25.699	9.631	1.00	59.47
	atom	4018	N	ALA	518	49.276	26.072	7.493	1.00	57.47
	atom	4019	CA	ALA	518	48.464	24.974	6.987	1.00	54.35
	atom	4020	CB	ALA	518	48.339	25.030	5.479	1.00	54.33
	atom	4021	C	ALA	518	49.051	23.643	7.453	1.00	52.60
30	atom	4022	O	ALA	518	48.320	22.737	7.855	1.00	50.87
	atom	4023	N	ALA	519	50.380	23.512	7.454	1.00	50.92
	atom	4024	CA	ALA	519	51.027	22.298	7.917	1.00	49.71
	atom	4025	CB	ALA	519	52.488	22.194	7.525	1.00	49.15
	atom	4026	C	ALA	519	50.959	22.161	9.439	1.00	48.69
35	atom	4027	O	ALA	519	51.110	21.055	9.957	1.00	48.66
	atom	4028	N	THR	520	50.800	23.275	10.140	1.00	47.46

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5	atom	4029	CA	THR	520	50.666	23.235	11.594	1.00	45.98
	atom	4030	CB	THR	520	50.940	24.616	12.196	1.00	45.32
	atom	4031	OG1	THR	520	52.353	24.847	11.987	1.00	45.27
	atom	4032	CG2	THR	520	50.595	24.686	13.670	1.00	42.69
	atom	4033	C	THR	520	49.303	22.664	11.955	1.00	44.34
10	atom	4034	O	THR	520	49.208	21.805	12.836	1.00	44.40
	atom	4035	N	CYS	521	48.268	23.014	11.197	1.00	43.05
	atom	4036	CA	CYS	521	46.957	22.414	11.453	1.00	42.38
	atom	4037	CB	CYS	521	45.808	23.013	10.666	1.00	37.78
	atom	4038	SG	CYS	521	45.567	24.777	10.937	1.00	39.22
15	atom	4039	C	CYS	521	47.040	20.917	11.167	1.00	41.86
	atom	4040	O	CYS	521	46.608	20.099	11.970	1.00	41.96
	atom	4041	N	GLY	522	47.679	20.565	10.060	1.00	42.17
	atom	4042	CA	GLY	522	47.864	19.193	9.633	1.00	41.79
	atom	4043	C	GLY	522	48.535	18.332	10.693	1.00	41.24
20	atom	4044	O	GLY	522	48.110	17.228	11.021	1.00	40.62
	atom	4045	N	LYS	523	49.590	18.844	11.277	1.00	40.85
	atom	4046	CA	LYS	523	50.426	18.183	12.264	1.00	41.09
	atom	4047	CB	LYS	523	51.690	19.051	12.353	1.00	39.12
	atom	4048	CG	LYS	523	52.768	18.644	13.325	1.00	41.02
25	atom	4049	CD	LYS	523	54.053	19.416	12.995	1.00	41.25
	atom	4050	CE	LYS	523	54.806	19.777	14.259	1.00	43.14
	atom	4051	NZ	LYS	523	55.361	18.565	14.921	1.00	45.08
	atom	4052	C	LYS	523	49.794	18.005	13.632	1.00	41.61
	atom	4053	O	LYS	523	49.921	16.961	14.284	1.00	41.09
30	atom	4054	N	TYR	524	49.131	19.045	14.138	1.00	41.86
	atom	4055	CA	TYR	524	48.505	19.045	15.442	1.00	41.36
	atom	4056	CB	TYR	524	48.529	20.474	16.021	1.00	41.97
	atom	4057	CG	TYR	524	49.930	20.802	16.515	1.00	43.28
	atom	4058	CD1	TYR	524	50.923	21.196	15.630	1.00	42.95
35	atom	4059	CE1	TYR	524	52.197	21.502	16.075	1.00	42.79
	atom	4060	CD2	TYR	524	50.250	20.717	17.864	1.00	43.24
	atom	4061	CE2	TYR	524	51.523	21.011	18.318	1.00	42.65
	atom	4062	CZ	TYR	524	52.490	21.404	17.417	1.00	42.78
	atom	4063	OH	TYR	524	53.769	21.709	17.826	1.00	42.29
	atom	4064	C	TYR	524	47.090	18.496	15.465	1.00	41.48

5	atom	4065	O	TYR	524	46.805	17.585	16.254	1.00	40.75
	atom	4066	N	LEU	525	46.183	19.023	14.644	1.00	40.81
	atom	4067	CA	LEU	525	44.798	18.608	14.601	1.00	39.80
	atom	4068	CB	LEU	525	43.968	19.538	13.679	1.00	36.75
	atom	4069	CG	LEU	525	44.152	21.034	13.958	1.00	37.95
10	atom	4070	CD1	LEU	525	43.372	21.908	12.985	1.00	36.60
	atom	4071	CD2	LEU	525	43.722	21.377	15.395	1.00	37.64
	atom	4072	C	LEU	525	44.624	17.183	14.109	1.00	40.41
	atom	4073	O	LEU	525	43.610	16.560	14.419	1.00	40.21
	atom	4074	N	PHE	526	45.537	16.689	13.263	1.00	40.85
15	atom	4075	CA	PHE	526	45.374	15.370	12.677	1.00	40.64
	atom	4076	CB	PHE	526	45.162	15.482	11.151	1.00	37.74
	atom	4077	CG	PHE	526	43.886	16.177	10.756	1.00	34.10
	atom	4078	CD1	PHE	526	43.900	17.513	10.416	1.00	31.45
	atom	4079	CD2	PHE	526	42.670	15.512	10.752	1.00	32.89
20	atom	4080	CE1	PHE	526	42.735	18.175	10.065	1.00	28.36
	atom	4081	CE2	PHE	526	41.501	16.165	10.404	1.00	30.56
	atom	4082	CZ	PHE	526	41.545	17.495	10.060	1.00	28.98
	atom	4083	C	PHE	526	46.463	14.367	12.979	1.00	41.11
	atom	4084	O	PHE	526	46.574	13.386	12.233	1.00	41.69
25	atom	4085	N	ASN	527	47.181	14.482	14.091	1.00	41.21
	atom	4086	CA	ASN	527	48.169	13.478	14.466	1.00	40.98
	atom	4087	CB	ASN	527	49.008	13.944	15.652	1.00	41.27
	atom	4088	CG	ASN	527	50.450	13.478	15.559	1.00	42.21
	atom	4089	OD1	ASN	527	51.043	13.224	16.602	1.00	41.73
30	atom	4090	ND2	ASN	527	51.042	13.388	14.373	1.00	42.15
	atom	4091	C	ASN	527	47.529	12.137	14.813	1.00	41.43
	atom	4092	O	ASN	527	48.160	11.098	14.612	1.00	41.00
	atom	4093	N	TRP	528	46.283	12.130	15.293	1.00	41.21
	atom	4094	CA	TRP	528	45.557	10.907	15.586	1.00	42.13
35	atom	4095	CB	TRP	528	44.180	11.192	16.230	1.00	37.93
	atom	4096	CG	TRP	528	43.317	12.076	15.380	1.00	34.34
	atom	4097	CD2	TRP	528	42.426	11.694	14.326	1.00	32.91
	atom	4098	CE2	TRP	528	41.864	12.867	13.798	1.00	32.39
	atom	4099	CE3	TRP	528	42.030	10.462	13.794	1.00	34.49
	atom	4100	CD1	TRP	528	43.274	13.435	15.432	1.00	34.38

5	atom	4101	NE1	TRP	528	42.389	13.918	14.488	1.00	33.58
	atom	4102	CZ2	TRP	528	40.937	12.861	12.760	1.00	34.21
	atom	4103	CZ3	TRP	528	41.108	10.440	12.759	1.00	35.84
	atom	4104	CH2	TRP	528	40.571	11.638	12.253	1.00	36.49
	atom	4105	C	TRP	528	45.336	10.064	14.332	1.00	43.57
	atom	4106	O	TRP	528	45.218	8.852	14.416	1.00	43.38
	atom	4107	N	ALA	529	45.198	10.676	13.165	1.00	46.15
10	atom	4108	CA	ALA	529	44.955	9.982	11.923	1.00	49.40
	atom	4109	CB	ALA	529	44.407	10.949	10.879	1.00	48.31
	atom	4110	C	ALA	529	46.170	9.250	11.372	1.00	51.74
	atom	4111	O	ALA	529	45.951	8.255	10.665	1.00	51.94
	atom	4112	N	VAL	530	47.392	9.684	11.657	1.00	54.38
	atom	4113	CA	VAL	530	48.559	9.017	11.115	1.00	57.58
	atom	4114	CB	VAL	530	49.811	9.901	10.913	1.00	56.64
15	atom	4115	CG1	VAL	530	49.705	10.591	9.564	1.00	55.90
	atom	4116	CG2	VAL	530	50.062	10.871	12.049	1.00	55.80
	atom	4117	C	VAL	530	49.062	7.817	11.909	1.00	60.30
	atom	4118	O	VAL	530	49.098	7.798	13.130	1.00	60.61
	atom	4119	N	LYS	531	49.562	6.847	11.144	1.00	63.26
	atom	4120	CA	LYS	531	50.161	5.639	11.685	1.00	66.27
	atom	4121	CB	LYS	531	50.666	4.759	10.541	1.00	69.64
20	atom	4122	CG	LYS	531	49.885	3.501	10.220	1.00	72.08
	atom	4123	CD	LYS	531	50.835	2.453	9.638	1.00	74.25
	atom	4124	CE	LYS	531	50.173	1.092	9.518	1.00	75.05
	atom	4125	NZ	LYS	531	51.138	-0.023	9.730	1.00	75.24
	atom	4126	C	LYS	531	51.339	5.945	12.607	1.00	67.35
	atom	4127	O	LYS	531	51.403	5.445	13.727	1.00	67.82
	atom	4128	N	THR	532	52.297	6.734	12.140	1.00	68.66
25	atom	4129	CA	THR	532	53.485	7.051	12.924	1.00	70.54
	atom	4130	CB	THR	532	54.760	6.991	12.055	1.00	71.43
	atom	4131	OG1	THR	532	54.746	5.781	11.285	1.00	70.87
	atom	4132	CG2	THR	532	56.012	7.006	12.923	1.00	71.75
	atom	4133	C	THR	532	53.376	8.424	13.574	1.00	71.04
	atom	4134	O	THR	532	53.632	9.443	12.939	1.00	70.97
	atom	4135	N	LYS	533	53.030	8.409	14.858	1.00	71.72
30	atom	4136	CA	LYS	533	52.820	9.650	15.569	1.00	71.93
	atom	4137	CB	LYS	533	52.820	9.650	15.569	1.00	71.93
	atom	4138	CG	LYS	533	52.820	9.650	15.569	1.00	71.93
	atom	4139	CD	LYS	533	52.820	9.650	15.569	1.00	71.93
	atom	4140	CE	LYS	533	52.820	9.650	15.569	1.00	71.93
	atom	4141	CF	LYS	533	52.820	9.650	15.569	1.00	71.93
	atom	4142	CG	LYS	533	52.820	9.650	15.569	1.00	71.93

	atom	4137	CB	LYS	533	52.196	9.400	16.954	1.00	74.51
	atom	4138	CG	LYS	533	50.763	8.932	16.736	1.00	76.61
	atom	4139	CD	LYS	533	49.912	8.974	17.989	1.00	77.96
	atom	4140	CE	LYS	533	48.519	8.433	17.670	1.00	78.89
5	atom	4141	NZ	LYS	533	47.701	8.233	18.898	1.00	79.35
	atom	4142	C	LYS	533	54.011	10.583	15.649	1.00	71.49
	atom	4143	O	LYS	533	55.127	10.271	16.022	1.00	71.85
	atom	4144	N	LEU	534	53.640	11.801	15.232	1.00	70.94
	atom	4145	CA	LEU	534	54.544	12.931	15.317	1.00	70.05
10	atom	4146	CB	LEU	534	54.174	14.176	14.536	1.00	69.66
	atom	4147	CG	LEU	534	54.187	14.156	13.011	1.00	69.70
	atom	4148	CD1	LEU	534	54.161	15.585	12.469	1.00	69.87
	atom	4149	CD2	LEU	534	55.417	13.445	12.459	1.00	69.68
	atom	4150	C	LEU	534	54.545	13.314	16.811	1.00	69.63
15	atom	4151	O	LEU	534	53.594	13.115	17.566	1.00	69.18
	atom	4152	N	LYS	535	55.691	13.865	17.165	1.00	69.01
	atom	4153	CA	LYS	535	55.851	14.329	18.552	1.00	68.42
	atom	4154	CB	LYS	535	57.289	14.124	18.967	1.00	71.55
	atom	4155	CG	LYS	535	57.611	14.418	20.418	1.00	73.51
20	atom	4156	CD	LYS	535	57.973	15.884	20.590	1.00	75.34
	atom	4157	CE	LYS	535	59.363	16.215	20.066	1.00	75.70
	atom	4158	NZ	LYS	535	60.415	15.943	21.085	1.00	75.79
	atom	4159	C	LYS	535	55.355	15.769	18.566	1.00	66.92
	atom	4160	O	LYS	535	55.752	16.564	17.708	1.00	67.34
25	atom	4161	N	LEU	536	54.402	16.053	19.449	1.00	64.88
	atom	4162	CA	LEU	536	53.817	17.385	19.503	1.00	62.01
	atom	4163	CB	LEU	536	52.290	17.282	19.536	1.00	58.68
	atom	4164	CG	LEU	536	51.673	16.465	18.400	1.00	56.57
	atom	4165	CD1	LEU	536	50.164	16.431	18.529	1.00	55.26
30	atom	4166	CD2	LEU	536	52.077	17.029	17.043	1.00	56.85
	atom	4167	C	LEU	536	54.310	18.186	20.694	1.00	61.38
	atom	4168	O	LEU	536	54.070	17.818	21.843	1.00	60.98
	atom	4169	N	THR	537	54.994	19.282	20.380	1.00	60.65
	atom	4170	CA	THR	537	55.542	20.195	21.378	1.00	60.08
35	atom	4171	CB	THR	537	57.042	20.462	21.152	1.00	59.39
	atom	4172	OG1	THR	537	57.223	21.100	19.879	1.00	59.90

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5	atom	4173	CG2	THR	537	57.841	19.175	21.198	1.00	57.38
	atom	4174	C	THR	537	54.793	21.520	21.323	1.00	60.03
	atom	4175	O	THR	537	54.024	21.766	20.396	1.00	59.74
	atom	4176	N	PRO	538	54.994	22.378	22.309	1.00	60.50
	atom	4177	CD	PRO	538	55.854	22.151	23.491	1.00	60.05
	atom	4178	CA	PRO	538	54.296	23.648	22.394	1.00	62.34
	atom	4179	CB	PRO	538	54.863	24.299	23.650	1.00	60.91
	atom	4180	CG	PRO	538	55.312	23.149	24.478	1.00	60.04
10	atom	4181	C	PRO	538	54.432	24.536	21.173	1.00	64.63
	atom	4182	O	PRO	538	55.537	24.869	20.741	1.00	65.28
	atom	4183	N	ILE	539	53.298	24.952	20.611	1.00	67.68
	atom	4184	CA	ILE	539	53.290	25.810	19.432	1.00	71.31
15	atom	4185	CB	ILE	539	51.881	25.985	18.841	1.00	69.01
	atom	4186	CG2	ILE	539	51.804	27.065	17.775	1.00	66.70
	atom	4187	CG1	ILE	539	51.380	24.656	18.259	1.00	67.98
	atom	4188	CD1	ILE	539	50.167	24.128	18.987	1.00	67.78
	atom	4189	C	ILE	539	53.908	27.172	19.733	1.00	74.86
20	atom	4190	O	ILE	539	53.411	27.937	20.557	1.00	74.77
	atom	4191	N	PRO	540	54.985	27.494	19.022	1.00	78.13
	atom	4192	CD	PRO	540	55.612	26.602	18.007	1.00	78.72
	atom	4193	CA	PRO	540	55.688	28.755	19.166	1.00	80.96
	atom	4194	CB	PRO	540	56.725	28.726	18.049	1.00	80.38
	atom	4195	CG	PRO	540	56.898	27.298	17.676	1.00	79.74
	atom	4196	C	PRO	540	54.824	30.003	19.060	1.00	83.92
25	atom	4197	O	PRO	540	53.877	30.076	18.270	1.00	84.20
	atom	4198	N	ALA	541	55.166	31.032	19.835	1.00	86.83
	atom	4199	CA	ALA	541	54.427	32.288	19.864	1.00	90.36
30	atom	4200	CB	ALA	541	54.914	33.125	21.044	1.00	90.83
	atom	4201	C	ALA	541	54.529	33.093	18.574	1.00	92.46
	atom	4202	O	ALA	541	55.108	32.644	17.586	1.00	92.76
	atom	4203	N	ALA	542	53.955	34.294	18.573	1.00	94.67
	atom	4204	CA	ALA	542	53.965	35.176	17.412	1.00	97.14
	atom	4205	CB	ALA	542	52.662	35.960	17.315	1.00	96.80
	atom	4206	C	ALA	542	55.146	36.145	17.431	1.00	98.65
35	atom	4207	O	ALA	542	55.520	36.675	18.477	1.00	99.00
	atom	4208	N	SER	543	55.728	36.382	16.260	1.00	100.02

5	atom	4209	CA	SER	543	56.878	37.267	16.130	1.00101.75
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	atom	4211	OG	SER	543	57.861	35.747	14.475	1.00101.37
	atom	4212	C	SER	543	56.592	38.432	15.192	1.00102.85
	atom	4213	O	SER	543	55.457	38.653	14.775	1.00102.81
	atom	4214	N	GLN	544	57.630	39.186	14.869	1.00103.89
	atom	4215	CA	GLN	544	57.610	40.337	13.995	1.00104.95
10	atom	4216	CB	GLN	544	56.528	40.294	12.911	1.00106.48
	atom	4217	CG	GLN	544	56.950	40.994	11.635	1.00107.82
	atom	4218	CD	GLN	544	55.886	41.816	10.948	1.00108.80
	atom	4219	OE1	GLN	544	55.451	41.491	9.841	1.00109.07
	atom	4220	NE2	GLN	544	55.456	42.912	11.571	1.00109.05
	atom	4221	C	GLN	544	57.458	41.636	14.791	1.00105.21
	atom	4222	O	GLN	544	57.581	42.726	14.192	1.00105.61
15	atom	4223	O	HOH	601	39.416	32.373	21.959	1.00 38.26
	atom	4224	O	HOH	602	34.853	12.289	23.051	1.00 25.35
	atom	4225	O	HOH	603	7.176	41.823	27.240	1.00 34.90
	atom	4226	O	HOH	604	27.015	49.222	35.013	1.00 21.37
	atom	4227	O	HOH	605	11.909	45.427	20.466	1.00 23.37
	atom	4228	O	HOH	606	45.945	15.106	16.832	1.00 25.63
	atom	4229	O	HOH	607	22.293	44.940	22.409	1.00 26.54
20	atom	4230	O	HOH	608	24.789	15.423	25.741	1.00 31.72
	atom	4231	O	HOH	609	36.607	20.122	27.816	1.00 32.48
	atom	4232	O	HOH	610	15.150	17.094	36.202	1.00 32.73
	atom	4233	O	HOH	611	33.052	48.857	20.494	1.00 62.14
	atom	4234	O	HOH	612	16.443	23.960	36.558	1.00 26.79
	atom	4235	O	HOH	613	12.419	39.814	32.488	1.00 25.49
	atom	4236	O	HOH	614	12.846	33.895	43.699	1.00 34.61
30	atom	4237	O	HOH	615	8.062	45.477	29.238	1.00 35.36
	atom	4238	O	HOH	616	13.451	46.746	18.419	1.00 28.42
	atom	4239	O	HOH	617	22.219	45.078	27.235	1.00 32.79
	atom	4240	O	HOH	618	14.351	35.851	42.540	1.00 31.94
	atom	4241	O	HOH	619	35.894	9.447	27.106	1.00 29.78
	atom	4242	O	HOH	620	6.654	38.401	15.563	1.00 33.57
	atom	4243	O	HOH	621	30.549	10.500	27.836	1.00 30.60
35	atom	4244	O	HOH	622	42.028	18.441	19.060	1.00 32.56

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	atom	4245	0	HOH	623	19.629	1.886	53.249	1.00	40.72
	atom	4246	0	HOH	624	18.601	43.513	26.480	1.00	37.90
	atom	4247	0	HOH	625	28.748	26.644	18.484	1.00	41.26
	atom	4248	0	HOH	626	26.560	11.619	29.877	1.00	38.48
5	atom	4249	0	HOH	627	29.465	15.171	34.150	1.00	36.73
	atom	4250	0	HOH	628	43.035	16.934	17.134	1.00	36.73
	atom	4251	0	HOH	629	23.822	46.573	24.097	1.00	33.20
	atom	4252	0	HOH	630	25.271	50.335	38.538	1.00	25.12
	atom	4253	0	HOH	631	4.320	37.148	42.301	1.00	32.46
10	atom	4254	0	HOH	632	40.613	17.436	39.080	1.00	49.80
	atom	4255	0	HOH	633	12.003	29.726	38.297	1.00	29.29
	atom	4256	0	HOH	634	35.382	50.151	34.603	1.00	34.72
	atom	4257	0	HOH	635	13.096	55.001	28.185	1.00	36.33
	atom	4258	0	HOH	636	20.632	26.171	14.508	1.00	33.70
15	atom	4259	0	HOH	637	28.974	41.981	32.988	1.00	43.64
	atom	4260	0	HOH	638	7.781	57.786	29.001	1.00	38.97
	atom	4261	0	HOH	639	38.145	24.924	39.145	1.00	29.73
	atom	4262	0	HOH	640	27.943	22.537	14.423	1.00	37.91
	atom	4263	0	HOH	641	28.202	32.555	23.637	1.00	51.86
20	atom	4264	0	HOH	642	39.590	20.940	28.396	1.00	38.94
	atom	4265	0	HOH	643	14.505	36.769	53.588	1.00	37.92
	atom	4266	0	HOH	644	16.399	35.986	23.736	1.00	35.19
	atom	4267	0	HOH	645	7.012	57.783	36.498	1.00	32.48
	atom	4269	0	HOH	647	27.052	22.485	23.212	1.00	33.74
25	atom	4270	0	HOH	648	20.118	11.628	49.419	1.00	33.05
	atom	4271	0	HOH	649	14.595	42.910	38.429	1.00	28.04
	atom	4272	0	HOH	650	48.673	28.709	22.473	1.00	36.18
	atom	4273	0	HOH	651	16.154	46.223	18.351	1.00	28.46
	atom	4274	0	HOH	652	4.856	50.821	25.300	1.00	40.58
30	atom	4275	0	HOH	653	15.174	52.133	22.544	1.00	33.68
	atom	4276	0	HOH	654	27.053	58.765	29.773	1.00	28.44
	atom	4277	0	HOH	655	22.999	55.126	46.074	1.00	32.29
	atom	4278	0	HOH	656	18.007	14.225	36.118	1.00	41.28
	atom	4279	0	HOH	657	42.757	18.415	26.706	1.00	40.21
35	atom	4280	0	HOH	658	10.348	47.542	21.144	1.00	40.90
	atom	4281	0	HOH	659	24.714	53.454	48.065	1.00	35.45

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	atom	4282	0	HOH	660	26.171	52.196	40.388	1.00	36.38
	atom	4283	0	HOH	661	22.662	38.585	33.007	1.00	30.29
	atom	4284	0	HOH	662	28.462	38.673	21.230	1.00	40.56
	atom	4285	0	HOH	663	27.665	61.143	24.885	1.00	34.88
5	atom	4286	0	HOH	664	5.749	46.729	33.345	1.00	39.87
	atom	4287	0	HOH	665	32.097	4.335	13.546	1.00	44.93
	atom	4288	0	HOH	666	15.509	57.627	43.098	1.00	38.96
	atom	4289	0	HOH	667	28.878	55.157	39.117	1.00	39.74
	atom	4290	0	HOH	668	2.344	34.193	39.491	1.00	41.74
10	atom	4291	0	HOH	669	18.705	17.526	18.312	1.00	48.89
	atom	4292	0	HOH	670	18.545	40.630	23.557	1.00	40.79
	atom	4293	0	HOH	671	18.093	56.934	43.757	1.00	43.01
	atom	4294	0	HOH	672	33.865	21.464	45.335	1.00	45.20
	atom	4295	0	HOH	673	18.738	11.296	52.312	1.00	40.67
15	atom	4296	0	HOH	674	49.842	21.756	27.208	1.00	45.26
	atom	4297	0	HOH	675	14.077	61.768	26.894	1.00	44.21
	atom	4298	0	HOH	676	29.352	37.793	38.488	1.00	47.48
	atom	4299	0	HOH	677	14.688	40.086	34.203	1.00	32.06
	atom	4300	0	HOH	678	-0.130	42.110	35.386	1.00	50.62
20	atom	4301	0	HOH	679	23.917	59.062	40.381	1.00	52.82
	atom	4302	0	HOH	680	21.039	27.441	18.989	1.00	53.38
	atom	4303	0	HOH	681	4.465	42.536	40.933	1.00	53.59
	atom	4304	0	HOH	682	28.864	53.264	42.979	1.00	49.83
	atom	4305	0	HOH	683	12.790	53.372	23.492	1.00	41.76
25	atom	4306	0	HOH	684	20.419	19.429	22.191	1.00	56.08
	atom	4307	0	HOH	685	32.405	6.817	33.858	1.00	43.52
	atom	4308	0	HOH	686	41.032	18.710	28.730	1.00	35.22
	atom	4309	0	HOH	687	33.372	56.650	29.484	1.00	38.25
	atom	4310	0	HOH	688	12.177	53.403	26.018	1.00	47.47
30	atom	4311	0	HOH	689	13.067	24.959	19.948	1.00	39.99
	atom	4312	0	HOH	690	26.208	56.586	32.718	1.00	35.69
	atom	4313	0	HOH	691	10.850	35.203	26.471	1.00	51.20
	atom	4314	0	HOH	692	-1.246	47.904	29.933	1.00	74.47
	atom	4315	0	HOH	693	15.332	41.394	36.356	1.00	33.45
35	atom	4316	0	HOH	694	31.936	5.151	29.986	1.00	44.42
	atom	4317	0	HOH	695	20.757	13.531	36.698	1.00	37.98

5	atom	4318	0	HOH	696	41.789	31.683	2.247	1.00	40.60
	atom	4319	0	HOH	697	13.768	27.205	18.627	1.00	51.03
	atom	4320	0	HOH	698	14.296	13.956	52.787	1.00	49.10
	atom	4321	0	HOH	699	1.909	45.188	21.728	1.00	39.05
	atom	4322	0	HOH	700	3.892	35.085	43.819	1.00	46.10
	atom	4323	0	HOH	701	28.415	57.528	34.019	1.00	37.60
	atom	4324	0	HOH	702	17.015	45.788	49.000	1.00	52.80
	atom	4325	0	HOH	703	13.341	58.649	23.958	1.00	39.43
10	atom	4326	0	HOH	704	1.465	28.797	15.139	1.00	46.86
	atom	4327	0	HOH	705	28.207	9.256	27.941	1.00	44.81
	atom	4328	0	HOH	706	12.303	56.985	21.644	1.00	59.92
	atom	4329	0	HOH	707	45.674	18.021	30.152	1.00	44.70
15	atom	4330	0	HOH	708	16.390	10.721	5.568	1.00	47.62
	atom	4331	0	HOH	709	33.735	40.733	36.056	1.00	45.60
	atom	4332	0	HOH	710	22.082	49.360	49.539	1.00	40.39
	atom	4333	0	HOH	711	12.143	56.551	25.310	1.00	52.77
	atom	4334	0	HOH	712	23.693	10.126	29.221	1.00	39.54
20	atom	4335	0	HOH	713	15.947	9.210	7.818	1.00	52.62
	atom	4336	0	HOH	714	18.643	63.643	26.154	1.00	45.78
	atom	4337	0	HOH	715	20.433	63.664	28.381	1.00	43.88
	atom	4338	0	HOH	716	4.576	31.597	52.144	1.00	43.55
	atom	4339	0	HOH	717	27.625	58.111	38.906	1.00	48.38
	atom	4340	0	HOH	718	34.785	24.278	25.937	1.00	36.67
25	atom	4341	0	HOH	719	38.676	32.144	25.131	1.00	48.13
	atom	4342	0	HOH	720	11.971	44.859	44.730	1.00	39.23
	atom	4343	0	HOH	721	27.713	4.896	10.913	1.00	37.81
	atom	4344	0	HOH	722	26.253	2.516	9.114	1.00	41.98
30	atom	4345	0	HOH	723	25.335	25.234	18.476	1.00	46.74
	atom	4346	0	HOH	724	28.698	6.858	44.415	1.00	56.04
	atom	4347	0	HOH	725	25.724	22.733	17.953	1.00	45.92
	atom	4348	0	HOH	726	30.617	28.694	15.393	1.00	56.96
	atom	4349	0	HOH	727	24.267	5.963	38.117	1.00	49.89
	atom	4350	0	HOH	728	36.317	56.063	21.506	1.00	55.28
35	atom	4351	0	HOH	729	24.123	28.153	13.537	1.00	53.34
	atom	4352	0	HOH	730	24.186	59.247	30.993	1.00	49.92
	atom	4353	0	HOH	731	7.413	53.048	27.667	1.00	37.69

	atom	4354	0	HOH	732	33.542	1.246	14.005	1.00	44.57
	atom	4355	0	HOH	733	27.985	60.350	27.701	1.00	47.94
	atom	4356	0	HOH	734	-1.449	42.665	33.002	1.00	45.86
	atom	4357	0	HOH	735	49.651	16.083	23.075	1.00	44.34
5	atom	4358	0	HOH	736	28.788	6.954	29.339	1.00	59.77
	atom	4359	0	HOH	737	11.485	48.716	23.565	1.00	24.30
	atom	4360	0	HOH	738	43.978	7.666	17.742	1.00	52.44
	atom	4361	0	HOH	739	-5.600	36.652	31.754	1.00	45.41
	atom	4362	0	HOH	740	-1.755	36.423	20.500	1.00	48.38
10	atom	4363	0	HOH	741	1.470	26.349	16.442	1.00	62.39
	atom	4364	0	HOH	742	25.968	15.337	28.212	1.00	44.37
	atom	4365	0	HOH	743	35.235	37.148	11.152	1.00	40.43
	atom	4366	0	HOH	744	3.609	36.727	39.779	1.00	38.39
	atom	4367	0	HOH	745	7.630	24.434	11.385	1.00	39.65
15	atom	4369	0	HOH	746	35.611	26.631	42.519	1.00	46.91
	atom	4370	0	HOH	747	21.977	25.528	12.231	1.00	48.62
	atom	4371	0	HOH	748	7.061	26.561	50.562	1.00	43.78
	atom	4372	0	HOH	749	-2.200	42.958	26.253	1.00	44.29
	atom	4373	0	HOH	750	14.510	23.745	31.041	1.00	52.28
20	atom	4374	0	HOH	751	33.359	49.132	31.548	1.00	44.21
	atom	4375	0	HOH	752	23.513	56.496	31.204	1.00	50.34

25 The structure of the HCV polymerase was visualized using the program software RasMol (Free Soft, Roger Sayle, Glaxo Research & Development, Greenford, Middlesex, UK). Figure 1 shows the three-dimensional structure obtained by visualizing the structural coordinate of NS5B₈₇₀ in Table 2.

30 Crystal structure analysis revealed that the crystal of HCV polymerase NS5B₈₇₀ belongs to the space group of P4₃2₁2 of a = b = 63.7 Å, c = 262.9 Å, and the HCV polymerase is 67 X 63 X 68 Å spherical protein comprising the cone shape in the structure.

35 The three-dimensional structure of the HCV polymerase NS5B₈₇₀ characteristically has a glove-like structure shown in Figure 1, comprising Fingers, Palm, Thumb, and Holder domains. Figure 2 schematically shows the structure of the HCV polymerase.

The Fingers domain comprises four β sheets and one α helix, similar to

the structure of the HIV reverse transcriptase, although there is no similarity in the amino acid sequence to this enzyme. There are two long loops (one loop extending from the N-terminus to α A helix, and the other loop between β 1 and β 2), and a net is formed from the lower part of the cone shape to the upper end of the Thumb domain. The lower part of the net is open, and presumably is the entrance for a substrate ribonucleoside triphosphate (rNTP).

It is known that the structure of the poliovirus polymerase (Structure 5, 1109-1122, 1997) comprises Fingers, Palm, and Thumb domains. The structure of the Fingers domain is disordered except for the net end containing a short helix in which the Fingers domain extends to the Thumb domain. The region corresponding to the connecting region between the Holder and Palm domains in the HCV polymerase was identified as the Fingers domain, however, most of the rest of the structure in the Fingers domain has not been revealed yet.

The Holder domain consists of two helices, α H and α I, located like supporting this region, a part of each α C, α D, α E, and α F, and a long loop like inserted to the Fingers and Palm domains between α D and α E. This domain forms a valley which is one wall of the cone shape between the Palm domain and this domain, and the U-shaped valley between the Fingers domain and the domain. In two valleys, basic amino acid residue align, which are positively charged. The positively charged surface conveniently binds to a negatively charged template RNA, thus the U-shaped valley is supposed to be an entrance for a template RNA.

The Palm domain comprises the structure similar to HIV reverse transcriptase, *E. coli*, or Taq DNA-dependent DNA polymerase and T7 DNA-dependent polymerase.

The Thumb domain consists of seven helices, two distorted β sheets. The core structure of this domain comprises the structure similar to the HIV reverse transcriptase. The β sheet extending from the apex of the Thumb domain consists of nonhydrophilic residues, except for the hydrophilic junction, and hangs down to the center of the cone shape, like pushing the C-terminal nonhydrophilic region. This long β sheet is not observed in the other polymerases.

The N-terminus of the HCV polymerase forms mimic β sheet at the center of the Fingers domain with β 5. This means that N-terminus-truncated variants lose the replicase activity.

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EXAMPLE 4

Determination of the active site and the RNA binding cleft in the HCV polymerase

The active site and the RNA binding cleft in the HCV polymerase were
5 determined based on the three-dimensional structures of the obtained HCV
polymerases (NS5B₅₇₀, NS5B₅₄₄, NS5B₅₃₆, and NS5B₅₃₁), the conformational
variation among each HCV polymerase, and the comparison of the three-
dimensional structures with other proteins comprising the similar functions.

The Palm domain of the HCV polymerase was revealed to have the
10 structure similar to HIV reverse transcriptase, *E. coli*, or Taq DNA-dependent
DNA polymerase, and T7 DNA-dependent polymerase. Comparison of the
conserved amino acids sequences between the active site of the structurally
known Palm domains of the other polymerase and the Palm domain of the HCV
polymerase deduced that the active site is the space formed by Asp 220, 318,
15 and 319, Lys 141, Arg 158, and/or the hydrophilic shallow cavity formed by Ser
282, Thr 287, and Asn 291.

Asp 225 corresponds to Tyr 115 of the HIV reverse transcriptase and
this difference of the amino acids presumably determines whether the
substrate is rNTP or dNTP. Arg 158 and Lys 141 of the Fingers domain, the
20 conserved residues between the HCV polymerase and the HIV reverse
transcriptase, would have an important role in the binding of rNTP.

The Thumb domain of the HCV polymerase can structurally move
against the Palm and Fingers domains and this movement changes the inner
space of the Palm domain. This movement can be compared to the open and
25 closed states of a glove. This space was confirmed to be formed by the regions of
amino acids 197 to 223, 310 to 325, and 348 to 366, and is designated "the inner
space of the Palm domain".

A compound existing in this space presumably inhibits the spatial
formation and inactivates the polymerase activity. It is rationally assumed that
30 "the inner space of the Palm domain" can be a target for HCV polymerase
inhibitors. Even if distortion is generated to some extent, this space is a part of
the RNA binding site, and this region may thus shift in about 1 to about 20,
preferably about 1 to about 10, and more preferably about 1 to about 5 amino
acids.

35 Figure 3 compares the amino acid sequences of the HCV polymerase,
poliovirus polymerase, and HIV reverse transcriptase. HCV, POLIO, and

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HIVRT in the figure indicate HCV polymerase, poliovirus polymerase, and HIV reverse transcriptase, respectively. The underlined sequences indicate the parts where the structures have not been clarified by the above structure analysis. It is difficult to deduce the active site and RNA binding cleft only from the two-dimensional structures, as obvious in these amino acid sequences.

The three-dimensional structure analysis of NS5B₆₇₀ showed that the C-terminal structure at positions 545 to 570 can be incorporated into a part of the RNA binding cleft of the HCV polymerase itself. Figure 4 schematically shows the structure of NS5B₆₇₀, emphasizing its C-terminus. The RNA binding cleft in which the C-terminal structure is incorporated is narrow in comparison with that the C-terminus-truncated variants, NS5B₆₄₄, NS5B₆₃₆, and NS5B₆₃₁, and the glove is slightly closed. This supports that the RNA binding cleft can be a target for the inhibition of the polymerase activity.

Lys 90, 98, 106, and 175, and Arg 168 in the Holder domain, and Arg 465 in the Thumb domain are located within 5 Å from the phosphodiester backbone of the RNA double strand model in the binding model made on the computer, consisting of the tentative short double strand model formed by a template and a primer. These amino acids would have an important role on the binding of the RNA strand. Therefore, these regions can also be a target for the inhibition of the polymerase activity.

EXAMPLE 5

Evaluation of the HCV polymerase activity

Synthesis of a template RNA

The DNA fragment (148 bp) containing polyU and 3' X sequence was completely synthesized using synthetic primers designed based on the sequence of the 3' untranslated region of the HCV genome, and cloned into plasmid pBluescript SK II (+) (Stratagene). The cDNA encoding the full length NS5B prepared in the same manner as in Example 1 was digested with restriction enzyme *KpnI* to obtain the cDNA fragment covers the region from the restriction enzyme cleavage site to the stop codon. This cDNA fragment was ligated to the upstream of 3' untranslated region DNA of pBluescript SK II (+). The DNA insert of about 450 bp in total was used as a template for preparing the template RNA. The plasmid was cleaved just after 3' X sequence, circulated, treated with phenol/chloroform, and purified by ethanol precipitation to recover the DNA.

Using the purified DNA as a template, utilizing the promoter in pBluescript SK II (+), RNA was synthesized by the run-off method using MEGAscript RNA synthesis kit (Ambion), and T7 RNA polymerase (at 37°C for 3 hours). DNaseI was added thereto and further incubated for 1 hour, and the template DNA was decomposed and removed to obtain the crude RNA product. The crude product was treated with phenol/chloroform, and purified by ethanol precipitation to obtain the desired template RNA. After confirming the quality of the RNA by agarose gel electrophoresis, the RNA was stored at -80°C. The RNA is a template suitable for the highly sensitive measurement of the polymerase activity.

Measurement of the HCV polymerase activity

The reaction mixture with the composition mentioned below (30 µl) was reacted at 25 °C for 90 min.

Reaction mixture: the HCV polymerase obtained in Example 1 (1 µg/ml), the template RNA obtained in Example 5 (10 µg/ml), ATP (50 µM), GTP (50 µM), CTP (50 µM), UTP (2 µM), [5, 6-³H] UTP (46 Ci/mmol (Amersham), 1.5 µCi), 20 mM Tris-HCl (pH 7.5), EDTA (1 mM), MgCl₂ (5 mM), NaCl (50 mM), DTT (1 mM), BSA (0.01%).

The reaction was terminated by adding 10% trichloroacetic acid at 4°C and 1% sodium diphosphate solution (150 µl) to the reaction mixture, and kept in ice for 15 min to precipitate the RNA. The RNA was trapped on a glass filter (Whatman, GF/C) by suction filtration. The filter was washed with a solution containing 1% trichloroacetic acid and 0.1% sodium diphosphate, then with 90% ethanol, and dried. A liquid scintillation cocktail (Packard) was added to the RNA synthesized by the enzyme reaction, and the radioactivity of the RNA was measured by a liquid scintillation counter.

The activity of the HCV polymerase was calculated from the value of radioactivity in the enzyme reaction of each NS5B using the radioactivity in the enzyme reaction of NS5B₉₉₁ as a standard. Table 4 shows the result.

Table 4. HCV polymerase activity

	HCV polymerase					
	NS5B ₅₉₁	NS5B ₅₇₀	NS5B ₅₅₂	NS5B ₅₄₄	NS5B ₅₃₆	NS5B ₅₃₁
relative activity (%)	100	3	147	2014	2107	2149

EXAMPLE 6**HCV polymerase useful for measuring the HCV polymerase activity**

The above results confirmed that NS5B₅₄₄, NS5B₅₃₆, and NS5B₅₃₁, show the HCV polymerase activity higher than the wild-type HCV polymerase NS5B₅₉₁, and NS5B₅₇₀; surprisingly 20-fold or more higher than NS5B₅₉₁.

Crystal structural analysis confirmed that evaluation of the HCV polymerase activity for the various mutants showed that NS5B₅₅₂ did not have high activity, and amino acid residues 517 to 526 of NS5B is the helix structure contained in the secondary structure which has an important role for maintaining higher structure (Example 3). From this result, the HCV polymerase comprising the amino acid sequence of NS5B₅₂₆, NS5B₅₂₇, NS5B₅₂₈, ... to NS5B₅₅₁ are assumed to comprise high HCV polymerase activity.

These NS5B₅₄₄, NS5B₅₃₆ and NS5B₅₃₁ comprising the high HCV polymerase activity are extremely useful for evaluating the inhibition level of the inhibitor candidate compounds in the evaluation of inhibitory activity *in vitro*, and HCV polymerase inhibitors can be efficiently designed or identified.

In addition, the inhibitors can be efficiently designed or identified by the above virtual screening based on structural coordinates of the HCV polymerase, for example, the structural coordinate of NS5B₅₄₄ shown in Table 3.

EXAMPLE 7**Identification of inhibitors for the HCV polymerase**

The three-dimensional structural analysis of NS5B₅₇₀ obtained in Example 3 revealed that the polypeptide region at positions 545 to 570, the C-terminal structure of the HCV polymerase NS5B₅₇₀, is incorporated into a part of the RNA binding cleft of the HCV polymerase itself. Moreover, the comparison with the three-dimensional structure of NS5B₅₄₄ or other variants, confirmed that the RNA binding cleft in which the C-terminal structure is

incorporated becomes slightly narrower than that in the C-terminus-truncated variants, NS5B₆₄₄, NS5B₆₃₆, and NS5B₆₃₁. This is compared to the slightly closed state of the glove. This suggests that the RNA binding cleft can be a target for the for polymerase inhibitors.

On the other hand, the measurement of the HCV polymerase activity in Example 5 revealed that the HCV polymerase activities of NS5B₆₄₄, NS5B₆₃₆, and NS5B₆₃₁ were higher than those of NS5B₆₀₁, NS5B₆₇₀, and NS5B₆₆₂.

These facts suggest that the polypeptide regions at positions 545 to 570 and a compound with the similar structure to the region can be an HCV polymerase inhibitor.

It is easily assumed that the polypeptide fragment at positions 545 to 570 can be an HCV polymerase inhibitor.

The difference of the HCV polymerase activities was observed between NS5B₆₆₂ and NS5B₆₄₄. This indicates that the polypeptide fragment at positions 545 to 552 and its partial fragment or a compound containing these fragments are particularly effective as HCV polymerase inhibitors.

The computational analysis of the three-dimensional structure using the program software QUANTA (MSI) confirmed that the region at positions 545 to 552 maintains hydrophobic interaction with the region comprising the hydrophobic surface existing in "boundary site between Thumb and Palm domains." Furthermore, the computational analysis confirmed that in the polypeptide fragment at positions 545 to 552, Leu 547, Trp 550, and Phe 551, especially Trp 550 and Phe 551, strongly interact with said hydrophobic surface.

Specifically "boundary site between Thumb and Palm domains" means the site which is formed by Ser 196, Pro 197, Ile 413, Met 414, Ile 447, Tyr 448, Tyr 452, Ile 454, Ile 462, and Leu 466 in the amino acid sequence of the HCV polymerase. This experimental result suggests "boundary domain between Thumb and Palm domains" or a domain containing a part of it can be a target for the HCV polymerase inhibitors. Particularly, it was confirmed that the polypeptide region at positions 545 to 552 and its partial fragment or a compound containing these fragments are effective as HCV polymerase inhibitors.

Next, a synthetic peptide was prepared by a conventional method and its HCV polymerase-inhibitory activity was assessed. The synthetic peptide consists of the polypeptide region at positions 546 to 551 of HCV polymerase

NS5B to both ends of which a Lys residue is attached and represented by the formula Lys-Asp-Leu-Ser-Gly-Trp-Phe-Lys. The synthetic peptide and NS5B₆₄₄ were pre-incubated at 25 °C for 30 minutes, and the polymerase activity was measured in the same manner as in Example 5. The synthetic
5 peptide inhibited the polymerase activity 40 to 50% at a final concentration of 30 μM.

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WHAT IS CLAIMED IS:

1. A polypeptide derived from HCV polymerase NS5B having an HCV polymerase activity and consisting of an amino acid sequence X-Y, wherein X is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, and a C-terminal amino acid residue of X is any one of amino acid residues 531 (Lys) to 570 (Arg) of the NS5B; and wherein Y is a carboxyl group or an amino acid sequence which is not derived from NS5B; and one or more amino acids in the amino acid sequence of X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionine residues.

2. The polypeptide of claim 1, wherein the C-terminal amino acid residue of X is any one of amino acid residues 536 (Leu) to 552 (Val) of the NS5B.

3. The polypeptide of claim 2, wherein the C-terminal amino acid residue of X is any one of amino acid residues 536 (Leu) to 544 (Gln) of the NS5B.

4. The polypeptide of claim 2, wherein the C-terminal amino acid residue of X is any one of amino acid residues 531 (Lys) to 544 (Gln) in the NS5B.

5. The polypeptides of any one of claims 1 to 4, wherein methionine residues in the amino acid sequence of X are replaced by selenomethionine residues.

6. The polypeptides of any one of claims 1 to 5, wherein Y is an amino acid sequence not derived from NS5B, and said amino acid sequence is suitable for a column purification.

7. The polypeptides of any one of claims 1 to 6, wherein the NS5B comprises an amino acid sequence of SEQ ID NO: 1.

8. The polypeptide of claim 1, wherein said polypeptide is identified by an three-dimensional structural coordinates shown in Table 2 or 3.

9. A crystal comprising the polypeptide of any one of claims 1 to 8.

10. A DNA encoding the polypeptide of any one of claims 1 to 8.

11. A method for determining a three-dimensional structural coordinates of a cocomplex or a variant of HCV polymerase NS5B by the molecular replacement method using a three-dimensional structure coordinate of said NS5B.

12. A method for designing or identifying HCV polymerase inhibitors, which comprises determining the complementarity of a test compound with an active site and/or RNA binding cleft of a polypeptide using the three-dimensional structural coordinate of said polypeptide or its part and the three-dimensional structural coordinate of the test compound, wherein said polypeptide is derived from the HCV polymerase NS5B having an HCV polymerase activity and consisting of an amino acid sequence X-Y, wherein X is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, a C-terminal amino acid residue of X is any one of amino acid residues 531 (Lys) to 570 (Arg) of the NS5B; and wherein Y is a carboxyl group or another amino acid sequence which is not derived from NS5B; and one or more amino acids in X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionine residues.

13. A method for designing or identifying HCV polymerase inhibitors, which comprises the steps of:

(a) determining the complementarity of a test compound with an active site and/or RNA binding cleft of the a polypeptide using a three-dimensional structural coordinate of said polypeptide or its part and a three-dimensional structural coordinate of said test compound, wherein said polypeptide is derived from the HCV polymerase NS5B having an HCV polymerase activity and consisting of an amino acid sequence X-Y, wherein X is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X is the amino acid residue 1 (Ser) of the NS5B, a C-terminal amino acid residue of X is any one of amino acid residues 531 (Lys) to 570 (Arg) of the NS5B; and wherein Y is a carboxyl group of another amino acid sequence which is not derived from NS5B; and one or more amino acids in X may be modified, and methionine residues in the amino acid sequence of X may be replaced by selenomethionin residues;

(b) determining HCV polymerase-inhibitory activity of said test compound; and

(c) designing or determining HCV polymerase inhibitors using the complementarity data of said test compound determined in the above (a), and the inhibitory activity data obtained in the above (b).

14. The method of any one of claims 11 to 13, wherein the three-dimensional structural coordinate of the polypeptide is any one of the three-

dimensional structural coordinates shown in Table 2 or 3.

15. A method for identifying HCV polymerase inhibitors, which comprises the steps of:

- (a) obtaining a polypeptide, which is derived from the HCV polymerase NS5B has an HCV polymerase activity, and consisting of the amino acid sequence X'-Y, wherein X' is a consecutive amino acid sequence which is a portion of the NS5B, an N-terminal amino acid of X' is the amino acid residue 1 (Ser) of the NS5B, a C-terminal amino acid residue of X' is any one of amino acid residues 531 (Lys) to 544 (Gln) of the NS5B; and wherein Y is a carboxyl group or another amino acid sequence which is not derived from NS5B; and one or more amino acids in X' may be modified, and methionine residues in the amino acid sequence of X' may be replaced by selenomethionin residues;

- (b) determining the HCV polymerase activity of said polypeptide by reacting said polypeptide obtained in the above (a) with a template RNA and substrates in the presence of a test compound;

- (c) determining the HCV polymerase activity of said polypeptide by reacting polypeptide obtained in the above (a) with a template RNA and substrates in the absence of said test compound; and

- (d) comparing the HCV polymerase activity of the above (b) with the HCV polymerase activity of the above (c).

16. An HCV polymerase inhibitor, identified by the method in any one of claims 12 to 15.

17. An HCV polymerase inhibitor that inhibits the HCV polymerase activity of HCV polymerase NS5B by acting the boundary between the Thumb and Palm domains of NS5B.

18. The HCV polymerase inhibitor of claim 17, wherein said inhibitor is a polypeptide represented by the formula (I) or a pharmaceutically acceptable salt thereof:



- wherein Z¹ and Z⁶ each represent a hydrophilic group or an amino acid residue; Z² and Z³ each represent a single bond or an amino acid residue; and Z⁴ and Z⁵ each represent an amino acid residue.

ABSTRACT

An HCV polymerase suitable for crystal structural analysis and a method for using the enzyme are provided. The HCV polymerase suitable for crystal structural analysis and/or comprising high HCV polymerase activity can be used for the three-dimensional structural analysis, and for rational identification of HCV polymerase inhibitors by computers. The enzyme can also be used for efficiently evaluating the HCV polymerase-inhibitory activity. The evaluation can be more efficiently performed by combining identification by computers.

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Fig. 1



Fig. 2

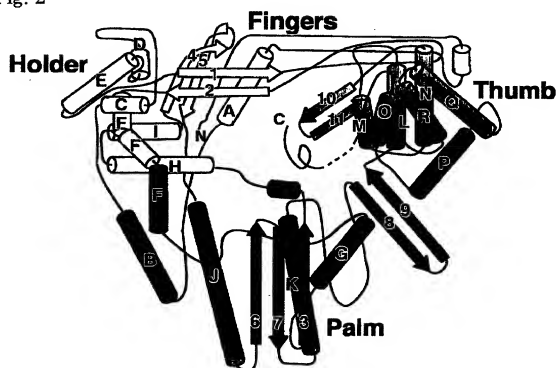
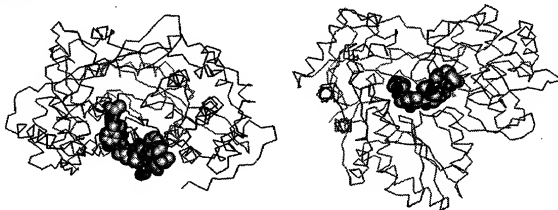


Fig. 4

[illegible]

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) <input checked="" type="checkbox"/> Declaration Submitted with Initial Filing OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16(e)) required)		Attorney Docket Number	SHIM-007
		First Named Inventor	Hideo Ago et al.
		Application Number	Unassigned
		Filing Date	Even Date Herewith
		Group Art Unit	Unassigned
		Examiner Name	Unassigned

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

HCV POLYMERASE SUITABLE FOR CRYSTAL STRUCTURE ANALYSIS AND METHOD FOR USING THE ENZYME

the specification of which:

☒ is attached hereto

OR

☐ was filed on _____ as United States Application Number or PCT International Application Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined by 37 CFR 1.56.

Insofar as the subject matter of each of the claims of this application are not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designating at least one country other than the United States of America, listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) having a filing date before that of the application(s) of which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
11-188630	JP	07/02/1999	___	___	<u>X</u>
11-192488	JP	07/07/1999	___	___	<u>X</u>

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application(s) designating the United States of America, listed below.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Inventor's Signature							Date
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City	Osaka	State		Zip	569-1125	Country	Japan

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Ala	Glu	Glu	Ser	Lys	Leu	Pro	Ile	Asn	Ala	Leu	Ser	Asn	Ser	Leu	Leu	
			20					25					30			
cgc	cac	cat	aac	atg	gtt	tat	gcc	aca	aca	tct	cgc	agc	gca	ggc	ctg	144
Arg	His	His	Asn	Met	Val	Tyr	Ala	Thr	Thr	Ser	Arg	Ser	Ala	Gly	Leu	
			35					40					45			
cgg	cag	aag	aag	gtc	acc	ttt	gac	aga	ctg	caa	gtc	ctg	gac	gac	cac	192
Arg	Gln	Lys	Lys	Val	Thr	Phe	Asp	Arg	Leu	Gln	Val	Leu	Asp	Asp	His	
		50						55				60				
tac	cgg	gac	gtg	ctc	aag	gag	atg	aag	gcg	aag	gcg	tcc	aca	gtt	aag	240
Tyr	Arg	Asp	Val	Leu	Lys	Glu	Met	Lys	Ala	Lys	Ala	Ser	Thr	Val	Lys	
65					70					75				80		

95

110

125

140

160

175

190

gga ttc cag tac tct cct ggg cag cga gtc gag ttc ctg gtg aat acc 624
Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu Val Asn Thr

195

200

205

tgg aaa tca aag aaa aac ccc atg ggc ttt tca tat gac act cgc tgt 672
Trp Lys Ser Lys Lys Asn Pro Met Gly Phe Ser Tyr Asp Thr Arg Cys

210

215

220

ttc gac tca acg gtc acc gag aac gac atc cgt gtt gag gag tca att 720
Phe Asp Ser Thr Val Thr Glu Asn Asp Ile Arg Val Glu Glu Ser Ile

225

230

235

240

tac caa tgt tgt gac ttg gcc ccc gaa gcc aga cag gcc ata aaa tgg 768
Tyr Gln Cys Cys Asp Leu Ala Pro Glu Ala Arg Gln Ala Ile Lys Ser

245

250

255

ctc aca gag cgg ctt tat atc ggg ggt cct ctg act aat tca aaa ggg 816
Leu Thr Glu Arg Leu Tyr Ile Gly Gly Pro Leu Thr Asn Ser Lys Gly

260

265

270

cag aac tgc ggt tat cgc cgg tgc cgc gcg agc ggc gtg ctg acg act 864
Gln Asn Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Thr Thr

275

280

285

agc tgc ggt aac acc ctc aca tgt tac ttg aag gcc tct gca gcc tgt 912
Ser Cys Gly Asn Thr Leu Thr Cys Tyr Leu Lys Ala Ser Ala Ala Cys

290

295

300

cga get gcg aag ctc cag gac tgc acg atg ctc gtg aac gga gac gac 960

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Arg Ala Ala Lys Leu Gln Asp Cys Thr Met Leu Val Asn Gly Asp Asp
 305 310 315 320

ctc gtc gtt atc tgt gaa agc gcg gga acc caa gag gac gcg gcg agc 1008
 Leu Val Val Ile Cys Glu Ser Ala Gly Thr Gln Glu Asp Ala Ala Ser
 325 330 335

cta cga gtc ttc acg gag gct atg act agg tac tcc gcc ccc ccc ggg 1056
 Leu Arg Val Phe Thr Glu Ala Met Thr Arg Tyr Ser Ala Pro Pro Gly
 340 345 350

gac ceg ccc caa cca gaa tac gac ttg gag ctg ata aca tca tgt tcc 1104
 Asp Pro Pro Gln Pro Glu Tyr Asp Leu Glu Leu Ile Thr Ser Cys Ser
 355 360 365

tcc aat gtg tgg gtc gcc cac gat gca tca ggc aaa agg gtg tac tac 1152
 Ser Asn Val Ser Val Ala His Asp Ala Ser Gly Lys Arg Val Tyr Tyr
 370 375 380

ctc acc cgt gat ccc acc acc ccc ctc gca cgg gct gcg tgg gag aca 1200
 Leu Thr Arg Asp Pro Thr Thr Pro Leu Ala Arg Ala Ala Trp Glu Thr
 385 390 395 400

gct aga cac act cca gtt aac tcc tgg cta ggc aac att att atg tat 1248
 Ala Arg His Thr Pro Val Asn Ser Trp Leu Gly Asn Ile Ile Met Tyr
 405 410 415

gcg ccc act ttg tgg gca agg atg att ctg atg act cac ttc ttc tcc 1296
 Ala Pro Thr Leu Trp Ala Arg Met Ile Leu Met Thr His Phe Phe Ser

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420	425	430	
atc ctt cta gcg cag gag caa ctt gaa aaa gcc ctg gac tgc cag atc 1344			
Ile Leu Leu Ala Gln Glu Gln Leu Glu Lys Ala Leu Asp Cys Gln Ile			
435	440	445	
tac ggg gcc tgt tac tcc att gag cca ctt gac cta cct cag atc att 1392			
Tyr Gly Ala Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro Gln Ile Ile			
450	455	460	
gaa cga ctc cat ggc ctt agc gca ttt tca ctc cat agt tac tct cca 1440			
Glu Arg Leu His Gly Leu Ser Ala Phe Ser Leu His Ser Tyr Ser Pro			
465	470	475	480
ggg gag atc aat agg gtg gct tca tgc ctc agg aaa ctt ggg gta cca 1488			
Gly Glu Ile Asn Arg Val Ala Ser Cys Leu Arg Lys Leu Gly Val Pro			
485	490	495	
ccc ttg cga gtc tgg aga cat cgg gcc agg agc gtc cgc gct agg cta 1536			
Pro Leu Arg Val Trp Arg His Arg Ala Arg Ser Val Arg Ala Arg Leu			
500	505	510	
ctg tcc cag ggg ggg agg gcc gcc act tgt ggc aag tac ctc ttc aac 1584			
Leu Ser Gln Gly Gly Arg Ala Ala Thr Cys Gly Lys Tyr Leu Phe Asn			
515	520	525	
tgg gca gtg aag acc aaa ctc aaa ctc act cca atc cag gct gcg tcc 1632			
Trp Ala Val Lys Thr Lys Leu Lys Leu Thr Pro Ile Pro Ala Ala Ser			
530	535	540	

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cag ctg gac ttg tcc ggc tgg ttc gtt gct ggt tac agc ggg gga gac 1680
 Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly Asp
 545 550 555 560

ata tat cac agc ctg tct cgt gcc cga ccc cgc gga tcc cat cac cat 1728
 Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Gly Ser His His His
 565 570 575

cac cat cac taa taa 1743
 His His His
 580

<210> 3

<211> 579

<212> PRT

<213> Artificial Sequence

<223> Description of Artificial Sequence:DNA encoding
 fusion protein consisting of a portion of HCV
 polymerase and histidine tag at the C-terminus

<400> 3

Met Ser Met Ser Tyr Thr Trp Thr Gly Ala Leu Ile Thr Pro Cys Ala
 1 5 10 15
 Ala Glu Glu Ser Lys Leu Pro Ile Asn Ala Leu Ser Asn Ser Leu Leu
 20 25 30
 Arg His His Asn Met Val Tyr Ala Thr Thr Ser Arg Ser Ala Gly Leu
 35 40 45

00508713 053000

Arg Gln Lys Lys Val Thr Phe Asp Arg Leu Gln Val Leu Asp Asp His
 50 55 60
 Tyr Arg Asp Val Leu Lys Glu Met Lys Ala Lys Ala Ser Thr Val Lys
 65 70 75 80
 Ala Lys Leu Leu Ser Val Glu Glu Ala Cys Lys Leu Thr Pro Pro His
 85 90 95
 Ser Ala Lys Ser Lys Phe Gly Tyr Gly Ala Lys Asp Val Arg Asn Leu
 100 105 110
 Ser Ser Lys Ala Val Asn His Ile His Ser Val Trp Lys Asp Leu Leu
 115 120 125
 Glu Asp Thr Val Thr Pro Ile Asp Thr Thr Ile Met Ala Lys Asn Glu
 130 135 140
 Val Phe Cys Val Gln Pro Glu Lys Gly Gly Arg Lys Pro Ala Arg Leu
 145 150 155 160
 Ile Val Phe Pro Asp Leu Gly Val Arg Val Cys Glu Lys Met Ala Leu
 165 170 175
 Tyr Asp Val Val Ser Thr Leu Pro Gln Val Val Met Gly Ser Ser Tyr
 180 185 190
 Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu Val Asn Thr
 195 200 205
 Trp Lys Ser Lys Lys Asn Pro Met Gly Phe Ser Tyr Asp Thr Arg Cys
 210 215 220
 Phe Asp Ser Thr Val Thr Glu Asn Asp Ile Arg Val Glu Glu Ser Ile
 225 230 235 240
 Tyr Gln Cys Cys Asp Leu Ala Pro Glu Ala Arg Gln Ala Ile Lys Ser
 245 250 255
 Leu Thr Glu Arg Leu Tyr Ile Gly Gly Pro Leu Thr Asn Ser Lys Gly
 260 265 270
 Gln Asn Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Thr Thr

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275 280 285
 Ser Cys Gly Asn Thr Leu Thr Cys Tyr Leu Lys Ala Ser Ala Ala Cys
 290 295 300
 Arg Ala Ala Lys Leu Gln Asp Cys Thr Met Leu Val Asn Gly Asp Asp
 305 310 315 320
 Leu Val Val Ile Cys Glu Ser Ala Gly Thr Gln Glu Asp Ala Ala Ser
 325 330 335
 Leu Arg Val Phe Thr Glu Ala Met Thr Arg Tyr Ser Ala Pro Pro Gly
 340 345 350
 Asp Pro Pro Gln Pro Glu Tyr Asp Leu Glu Leu Ile Thr Ser Cys Ser
 355 360 365
 Ser Asn Val Ser Val Ala His Asp Ala Ser Gly Lys Arg Val Tyr Tyr
 370 375 380
 Leu Thr Arg Asp Pro Thr Thr Pro Leu Ala Arg Ala Ala Trp Glu Thr
 385 390 395 400
 Ala Arg His Thr Pro Val Asn Ser Trp Leu Gly Asn Ile Ile Met Tyr
 405 410 415
 Ala Pro Thr Leu Trp Ala Arg Met Ile Leu Met Thr His Phe Phe Ser
 420 425 430
 Ile Leu Leu Ala Gln Glu Gln Leu Glu Lys Ala Leu Asp Cys Gln Ile
 435 440 445
 Tyr Gly Ala Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro Gln Ile Ile
 450 455 460
 Glu Arg Leu His Gly Leu Ser Ala Phe Ser Leu His Ser Tyr Ser Pro
 465 470 475 480
 Gly Glu Ile Asn Arg Val Ala Ser Cys Leu Arg Lys Leu Gly Val Pro
 485 490 495
 Pro Leu Arg Val Trp Arg His Arg Ala Arg Ser Val Arg Ala Arg Leu
 500 505 510

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Leu Ser Gln Gly Gly Arg Ala Ala Thr Cys Gly Lys Tyr Leu Phe Asn
 515 520 525
 Trp Ala Val Lys Thr Lys Leu Lys Leu Thr Pro Ile Pro Ala Ala Ser
 530 535 540
 Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly Asp
 545 550 555 560
 Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Gly Ser His His His
 565 570 575
 His His His

<210> 4

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence, 5BNdelFW.

<220>

<221> primer_bind

<222> (1)..(30)

<400> 4

catatgtcaa tgtctacac atggacagcc

30

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<210> 5

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence, 5B570HRV.

<220>

<221> primer_bind

<222> (1)..(57)

<400> 5

ttattagtga tggatgatgt gatgggatcc gcggggtcgg gcacgagaca ggctgtg 57

<210> 6

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence, 5B552HRV.

<220>

<221> primer_bind

<222> (1)..(57)

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<400> 6

ttattagtga tggatgatgt gatgggatcc aacgaaccag cgggacaagt ccagctg 57

<210> 7

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence, 5B544HRV.

<220>

<221> primer_bind

<222> (1)..(57)

<400> 7

ttattagtga tggatgatgt gatgggatcc ctgggaacga gccgggattg gattgag 57

<210> 8

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially

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synthesized primer sequence, 5B536HRV.

<220>

<221> primer_bind

<222> (1)..(67)

<400> 8

ttattagtga tggatgatgt gatgggatcc gagtttgagt ttggtcttca ctgcccagtt 60
gaagagg 67

<210> 9

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence, 5B531HRV.

<220>

<221> primer_bind

<222> (1)..(60)

<400> 9

ttattagtga tggatgatgt gatgggatcc cttaactgcc cagttgaaga ggtacttgcc 60

<210> 10

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<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificially
synthesized primer sequence, 5B591HRV.

<220>

<221> primer_bind

<222> (1)..(52)

<400> 10

ttattaatgg tgatggtgat ggtgtccgga tcgattgggg agcaggtaga tg 52

<210> 11

<211> 8

<212> PRT

<213> Hepatitis C virus

<400> 11

Xaa Xaa Xaa Leu Xaa Xaa Trp Phe Xaa

1

5

<210> 12

<211> 8

<212> PRT

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<213> Hepatitis C virus

<400> 12

Lys Asp Leu Ser Gly Trp Phe Lys

1 5

<210> 13

<211> 9

<212> PRT

<213> Hepatitis C virus

<400> 13

Lys Lys Asp Leu Ser Gly Trp Phe Lys

1 5

<210> 14

<211> 8

<212> PRT

<213> Hepatitis C virus

<400> 14

Lys Asp Leu Ser Gly Trp Phe Val

1 5

<210> 15

<211> 8

09608713.063000

<212> PRT

<213> Hepatitis C virus

<400> 15

Leu Asp Leu Ser Gly Trp Phe Lys

1

5

<210> 16

<211> 8

<212> PRT

<213> Hepatitis C virus

<400> 16

Leu Asp Leu Ser Gly Trp Phe Val

1

5

<210> 17

<211> 7

<212> PRT

<213> Hepatitis C virus

<400> 17

Asp Leu Ser Gly Trp Phe Val

1

5

<210> 18

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<211> 6

<212> PRT

<213> Hepatitis C virus

<400> 18

Asp Leu Ser Gly Trp Phe

1

5

<210> 19

<211> 6

<212> PRT

<213> Hepatitis C virus

<400> 19

Leu Ser Gly Trp Phe Val

1

5

<210> 20

<211> 5

<212> PRT

<213> Hepatitis C virus

<400> 20

Leu Ser Gly Trp Phe

1

5

09608713.063000

<210> 21

<211> 6

<212> PRT

<213> Hepatitis C virus

<400> 21

Leu Ser Gly Trp Phe Lys

1

5

<210> 22

<211> 6

<212> PRT

<213> Hepatitis C virus

<400> 22

Lys Leu Ser Gly Trp Phe

1

5

<210> 23

<211> 5

<212> PRT

<213> Hepatitis C virus

<400> 23

Leu Gly Gly Trp Phe

1

5

09608713.063000

<210> 24

<211> 5

<212> PRT

<213> Hepatitis C virus

<400> 24

Leu Ser Asp Trp Phe

1

5

000090-ET-80960